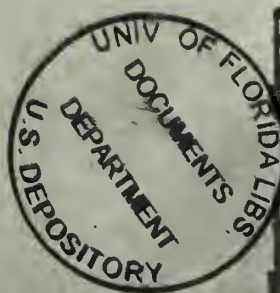
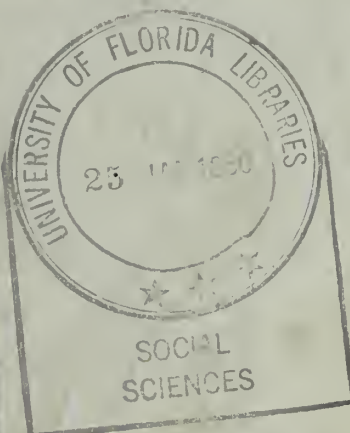


ALL HANDS

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In this issue: POLARIS

JANUARY 1960



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JANUARY 1960

Nav-Pers-O

NUMBER 516

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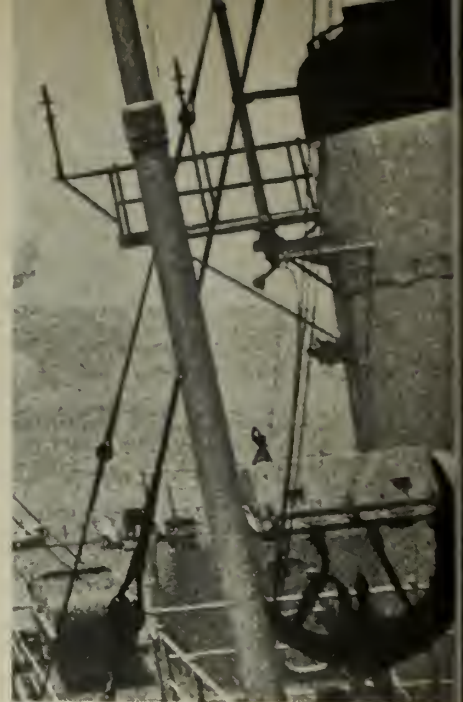
French Crawford Smith, Reserve

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• **FRONT COVER: OUT OF WATER**—Navy's solid propellant Fleet ballistic missile *Polaris* stands on gantry at Cape Canaveral just prior to test flight. The missile, when carried by a submarine, can be fired while the sub is submerged.

• **AT LEFT: FLEET'S IN**—Emerging from fog banks, the First Fleet enters San Francisco Bay. In line are *USS Midway* (CVA 41), *USS Kearsarge* (CVA 33) and *USS Hancock* (CVA 19) passing under the Bay Bridge. Photo by Al Labendz, PHC, USN.

• **CREDITS:** All photographs published in *ALL HANDS* are official Department of Defense Photos unless otherwise designated. Photo at top right corner of page 9 is by World Wide Photos, Inc.



IT'S POLARIS FOR

THE PROBLEM: The oceans are neutral. They take no part in the struggles between them.

Yet for many years after the founding of this nation, the United States found the ocean to be its ally. In time of peace, the Atlantic and the Pacific insulated us from the quarrels of Europe and Asia. In time of war, these same oceans protected us against direct enemy attack and

furnished a convenient highway for men and material.

It was different in World Wars I and II. Then, it was our enemy as well as our friend. In each instance, German submarines came close to defeating the Allies. Closer than most people realize.

Because of the introduction of two new elements—the nuclear-propelled submarine and the submarine-

launched intermediate range ballistic missile—the ocean can be an even greater enemy.

An attack by a single missile-launching submarine, equipped with missiles with hydrogen warheads, could decimate several of our major cities. A major attack could shatter our society beyond recovery.

The day is rapidly nearing when an enemy will possess, first a few, and then a large fleet of intermediate-range ballistic missile-launching nuclear-propelled submarines.

As the situation now stands, we just simply couldn't stand such an attack.

UP AND AT THEM—Artist's conception drawn in the early phases of the Polaris project shows the missile being fired from beneath the surface.



BUT—if we were to possess a similar fleet of missile-launching submarines, we could, if need be, also inflict a similar attack against an aggressor. Our present philosophy is based upon the conviction that, as long as we possess this possibility of a deterrent force, no enemy will dare attack us.

To make this defense work, we face three problems in underscaw warfare. One is old; two are new.

- The first is: How can we best carry out the traditional mission of the Navy? We are a part of a maritime confederation. Its survival—and ours—depends on the uninterrupted transportation of materials and peo-

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ple across the oceans and the control of areas near sea coasts. The Navy must still keep the oceans open for friendly ships and bring superior concentration of power to bear on coastal areas in other regions of the world.

- Second: How best protect the cities, factories and military installations of this country against the threat of missile-launching submarines? In a few years, the threat of strategic attack from the sea may equal in danger the threat of attack from land-based manned bombers and intercontinental missiles.

- And third: How are we going to exploit the new power of submarine-launched missiles to increase our own strength?

THE DANGER—At the present time, there is only one nation—the Soviet Union—which is in a position to challenge our naval supremacy. Our planners would be neglecting their responsibilities if they did not visualize the possibility that these forces might some day be used against our country.

Here's the situation:

At the moment, the Soviet submarine force consists of an estimated 475 conventional-power vessels.

At the height of World War II, we faced 440 German U-boats not

equipped with snorkels, with limited underwater endurance, and with a top underwater speed of some 12 knots. To combat this force, we had a total of 950 ocean-going escorts and 2200 ASW aircraft.

This compares with about 300 escorts and about 700 ASW aircraft operating today.

Numerically speaking, the situation does not look good for us. It is assumed that if all-out war broke out within the next year or so, the Soviet diesel-electric submarine fleet could inflict very severe damage on allied naval forces.

We must also presume that the Soviets will soon possess nuclear submarines which can fire ballistic missiles. It is estimated that the first of these will be in operation in 1962.

Our present line of defense is relatively close to our coasts. To counter the threat of these missile-launching

submarines, we must develop barriers against them at distances from our coasts greater than the range of their missiles.

Nuclear-propelled missile-firing submarines will be much more difficult to destroy than conventional craft—and they are more dangerous. Kill rates which would be tolerable for meeting the threat to shipping—as was the situation in World Wars I and II—are not good enough for countering the underwater missile threat.

Unless countermeasures not now in existence become available, an attack could be mounted from the sea against the cities of the United States some time in the early 1960s.

As appraised in this fashion, the situation, doesn't look so good. What do we have to offer as a possible answer?

We have, in addition to an anti-

GOING UP—Polaris roars from deck of USS Observation Island (AG 154) during first test firing of the FBM submarine missile from a ship at sea.



FROM DOWN UNDER—Submarines armed with *Polaris* will form mobile underwater missile pad that can launch an attack reaching enemy inland targets.

submarine warfare technique, the *Polaris* weapon system.

THE ANSWER: Nuclear propulsion is revolutionizing sea power just as steam did a century ago. The missile is revolutionizing warfare much as the airplane did a generation ago. Nuclear explosives are causing great

changes in our thinking than gunpowder did in the 14th century.

The U. S. Navy has developed a new weapons system that combines all three elements of the present revolution in military technology. This is *Polaris*, an intermediate-range ballistic missile (IRBM) cap-

able of carrying a nuclear warhead that can be fired from a submerged nuclear-powered submarine for a distance up to 1500 miles.

Polaris will at the very least be a major supplement to the United States capability for deterrence. It may be more of a deterrent than the conventional intercontinental ballistic missile (ICBM). As the number of long-range rockets in the enemy's arsenal increases, the capability of either our manned bombers or missiles, operating from fixed bases, to provide the necessary retaliation, becomes less. As time goes on, we will have to rely more and more on missiles for this retaliation.

An effective retaliatory force should meet the following standards:

- • The enemy should fear it. It should be able to reach any enemy target.

- • It should be so located that attempts to destroy it before it is launched would not also cause damage to non-military targets.

- • It should be invulnerable to all forms of enemy attack, including ballistic missiles.

- • Its launching points should be such that they cannot be located accurately in advance by an enemy, and such that most probable trajectories cannot be calculated in advance by an enemy.

- • After it is launched, it should be relatively invulnerable to counter-measures.

- • It should be as invulnerable as possible to enemy efforts of sabotage.

- • The time between the decision to fire and actual launching should be as small as possible.

- • It should complicate the enemy's defense problems so much that he can never really be sure that he does have a defense.

IT WAS UPON these standards that the *Polaris* submarine weapon system was developed.

At present, plans call for a relatively few nuclear submarines stationed at points in the Atlantic, Arctic, Pacific and Indian Oceans, the Mediterranean Sea and the Persian Gulf. Without surfacing, a sub crew will be able to launch sixteen missiles up through the water and into the sky within 15 minutes.

In short, *Polaris* provides us with a system of mobile, fully concealed missile-launching bases wholly under our own flag and control. They will enable us to shift the weight of our military firepower from one area

What is *Polaris*?

The *Polaris* missile is a two-stage solid-propellant missile designed to be launched from submarines, either surfaced or submerged, or launched from surface ships or from shore.

The primary means of launching *Polaris* will be from Fleet Ballistic Missile (FBM) submarines designed especially for this purpose. Submarine personnel can check and prepare missiles for firing from within the submarine while submerged. A solid-type propellant system and the fire control equipment will permit missiles to be launched rapidly and on short notice.

Ejected from its launching tube by inert gases, *Polaris* is forcefully propelled above water where the missile motor ignites. The missile continues on its own power until its thrust is ended by a signal from the missile guidance system.

After arrival at the correct speed and at the correct point in space, the second-stage motor thrust comes to an end, and the re-entry body then continues along the pre-planned trajectory to the target. The missile will have an initial range of over 1200 miles.

Up to the present, the development of *Polaris* has progressed satisfactorily and ahead of schedule with approximately 20 flight tests having been conducted. The missile has been successfully flown in excess of 900 miles and successfully fired at sea from USS *Observation Island* (AG-154).

It is estimated that a "shipload" of 16 *Polaris* missiles can be manufactured (at the present stage of development) for about \$20 million, or some \$1,300,000 per weapon. Approximate cost of a fleet ballistic missile submarine is about \$93,000,000.

to another, quickly and secretly, adding strength where it is needed.

Polaris will bring within range of direct attack from the sea almost all important military targets. It can reach these targets in some 15 minutes from the instant of firing. With a relatively small number of submarines on station, dozens of *Polaris* missiles, with nuclear warheads, can be on their way immediately.

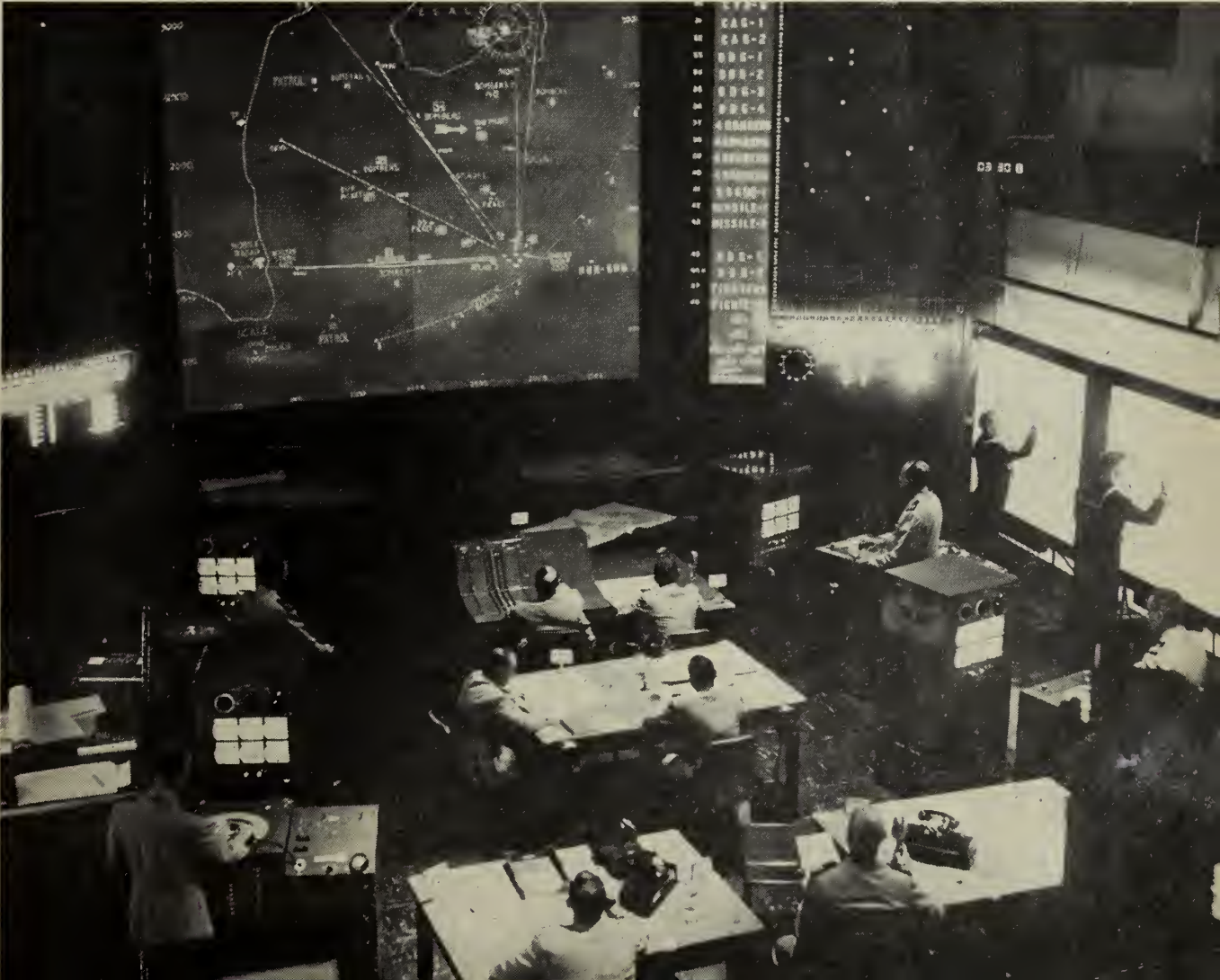
With their worldwide cruising radius, nuclear-powered submarines can patrol for months at a stretch, move submerged at high speeds and will be almost impossible to locate.

The very knowledge that they are there, within range and ready, will exert a strong deterrent influence on any leadership, however reckless.

Thus, *Polaris*-launching submarines, constantly moving under water to avoid detection, are one deterrent force that can get through an enemy's screen of interceptor missiles and cannot be wiped out by a sudden, unexpected missile attack.



SEA TACTICS—Navymen hold war games with electronic fleet on Navy Electronic Warfare Simulator (NEWS) at Naval War College, Newport, R. I. Above: Strange looking device is *Polaris* launching tube used in tests.



IT'S HERE —

FLEET

TODAY A NEW BREED of Navymen sails a radically new ship. A ship that introduces a new concept of naval power and has a mission as challenging as any that has ever confronted seafaring men in peace or war.

This is the Fleet Ballistic Missile submarine. It represents a partnership between two of the most revolutionary technical developments of our time—the nuclear-powered submarine and the ballistic missile.

Uss *George Washington*, SSB(N) 598, is the Navy's first FBM submarine. She was commissioned on 30 Dec 1959. *Patrick Henry*, SSB(N) 599, is the second and *Theodore Roosevelt*, SSB(N) 600, the third. They will all be operational before the end of this year.

Then there's *Robert E. Lee*, SSB(N) 601, *Abraham Lincoln*, SSB(N) 602, and *Ethan Allen*, SSB(N) 608. They are scheduled to be commissioned in September and December 1960 and June 1961 respectively, and will join the Fleet during 1961.

In addition, *Sam Houston*, SSB(N) 609, *Thomas A. Edison*, SSB(N) 610, and *John Marshall*, SSB(N) 611, are being built. They will be launched next year and will go into service in 1962.

At present, these nine FBM submarines are the only ones that have been authorized. Long-range plans, however, call for a Fleet of approximately 40 ballistic missile submarines capable of carrying hundreds of *Polaris* missiles. *George Washington* and other FBM subs now under construction have 16 vertical tubes for launching *Polaris* missiles.

This Fleet will comprise a portion of this country's deterrent retaliatory strength. It will confront any potential aggressor with serious problems and make him take a second look.

WHAT IS THE FBM submarine? Let's take a closer look at *George Washington* and see for ourselves.

Physically, *Washington* is an un-

←————→
BLAST OFF—USS *George Washington* shoots test cylinder skyward during test of *Polaris* missile-firing system.

ALL HANDS

BALLISTIC MISSILE SUB

usually long and heavy submarine, even by atomic standards. This black, blimp-shaped underwater monster is 380 feet from bow to stern and displaces 5400 tons on the surface and 6700 tons submerged. It cost about 110 million dollars to build. Her hull was patterned after USS *Skipjack*, SS(N) 585, the high-speed atomic sub which shattered all existing speed and depth records.

An all-out effort went into building *Washington*. Wartime phrases like "top priority," "urgent" and "rush" became as commonplace in the shipyard that built her as did six- and seven-day weeks and 12-hour days for the designers, engineers, construction workers and crew who completed her in jig time. Our first Fleet ballistic missile submarine went from the drawing boards to launching in just 14 months after design specifications were approved.

The urgency of the FBM program required *Washington's* builders literally to split open the hull of the attack submarine *Scorpion*, SS(N) 589—then under construction—and insert her *Polaris* launching tubes; then turn the existing hull into that of *Washington*—about 130 feet longer than the *Skipjack* class sub that was originally on the building ways.

The story of *Washington's* construction—which packs missile-launching pads and blockhouses into a comparatively few feet amidships—goes back to January 1958 when the Navy proposed further augmentation, calling for a nine SSBN capability by the end of 1961.

The preliminary designs and specifications of *Washington* were completed in less than two months after the Navy awarded the contract for construction of the first two FBMs. From that point on, it was a nip and tuck race between the designers and the shipbuilders. Requiring over 3300 separate plans, the designers were barely able to keep ahead of the yard workers.

OVER 2500 TONS OF STEEL, 70 miles of cable, 105,600 feet of pipe, 67 tons of weld metal, 118 electric motors, 50-ton gyro stabilizers, as well as the nuclear reactor and its shielding, and scores of new types of electronic computers and

navigational devices went into *Washington*.

The SSB(N) 598 is a precedent-setter. Take its name for example. The Navy broke a tradition as old as the submarine service itself, when it named its first Fleet ballistic missile submarine. (Traditionally submarines have been named for fish.) *Washington* is the first U. S. submarine since 1900 to be named for a person.

When the Navy acquired its first submarine in 1900, it was named *Holland* in honor of John P. Holland, its designer and builder. Immediately thereafter, the Navy began naming submarines for fish and sea creatures.

This practice of naming subs after creatures of the sea pre-dated the Navy's submarine force. David Bushnell, the Connecticut Yankee who built a one-man submersible in the Revolutionary War, called his craft *Turtle*. Then some years later Robert Fulton built a submarine which he named *Nautilus*.

In 1911, with a growing submarine Fleet, the Navy abandoned the practice of naming its underwater craft, and began to designate them by a letter-number combination. This practice prevailed until the early 1930s when the Fleet-type subs went into production.

With these Fleet boats, which bore the burden of underseas operations during World War II, names of fish were again used. The advent of the post-war nuclear Navy found submarines—such as *Nautilus*, *Seawolf*, *Skate* and *Skipjack*—still named for fish and other forms of sea life.

However, the Fleet ballistic missile subs posed a unique problem for the Navy, principally because they were to be strategic rather than tactical weapons.

A variety of names for the new class of submarines was proposed, such as states, cities and submarines lost in World War II. The Navy finally settled on famous Americans known for their dedication to the cause of freedom. *George Washington*, appropriately enough, was the first.

WHILE THE MASS of steel and machinery was beginning to take the form of a ship, *George Washington* was assigned to Submarine Squadron 14—making it the first ship in naval history to be assigned to a Fleet unit even before it was built.

There was sound reasoning behind this assignment since the job of the paper squadron was to work out detailed training programs and

MISSILE MASTER—Navy's first Fleet Ballistic Missile submarine, USS *George Washington*, SSB(N) 598, revs up her atomic engine on shakedown cruise.





FLEET ballistic submarine sailors get to know their sub on circuit trainer.

operational tactics for the FBM submarines and their crews—a task which does not require a ship in the initial stages.

SUBRON 14 became operational in the Pentagon at Washington, D. C., back in July 1958. It is scheduled to shift to New London, Conn., its home port, in the near future.

Heading SUBRON 14 is Captain Norwell G. Ward, USN, a veteran submariner; Capt R. G. Anderson, USN, a pioneer in submarine-launched missiles, is his Chief Staff Officer. Many of the details concerning this unusual squadron are highly classified since it is primarily concerned with strategy and tactics.

As commodore of SUBRON 14, CAPT Ward eventually will have nine FBM submarines, a specially converted sub tender, and over 2500 Navymen under his command.

Because the mission of SUBRON 14 will be primarily strategic, as distinguished from the tactical operations of attack submarines against

other submarines and surface ships, the over-all assignment of the squadron's missions rests directly with the CNO and the Joint Chiefs of Staff.

ANOTHER PRECEDENT that *Washington* claims is her Blue and Gold crew concept. *She* will be assigned two commanding officers and two complete crews—CDR James B. Osborne, USN, is CO of *Washington*'s Blue crew, while CDR John L. From, USN, will be skipper of the Gold crew—each consisting of 10 officers and 90 enlisted men.

The Blue crew, after undergoing extensive training, reported aboard *Washington* at Groton, Conn., last June, while the Gold crew reported in September. Since then, both crews have been working around the clock, getting the mobile missile base ready for sea.

Before and after reporting to *Washington*, both the Blue and Gold crews received identical training in the nuclear power plant, the *Polaris*

missile and other aspects of the new submarine. (See page 14.)

The two-crew concept was adopted for *Washington* and other FBM submarines because they are slated to be on station almost constantly. Nuclear submarine operations are limited only by human endurance as demonstrated by the polar cruise of *uss Nautilus* SS(N) 571, and *Skate*, SS(N) 578, and the 60-day submerged cruise of *uss Seawolf*, SS(N) 575.

While one crew is at sea, the other will be ashore for rest, recreation and training at the FBM training facility at New London.

UNPRECEDENTED, too, is the mass of new shipboard equipment.

Washington's mission requires her to stay out of sight and sound. But to do this, the CO must have reliable methods of determining his position in reference to destination and potential targets. Thus, the most comprehensive battery of navigational instruments ever assembled in one ship has been installed in *Washington* and her sister ships.

Basic reference for *Washington*'s navigators (LT William H. Cossaboom, USN, Blue; and LT William P. St. Lawrence, Jr., USN, Gold), will be the Ship's Inertial Navigation System (SINS). SINS enabled *Nautilus* and *Skate* to reach the North Pole under the polar ice cap. Three sets of SINS are installed in *Washington*—each one constantly checking the reliability of the others.

Nothing is left to chance. Navigators have at their fingertips many methods of obtaining information. They also have conventional equipment such as radar, magnetic compass, gyro compass and dead reckoning tracers.

The FBM subs are also equipped with a "TV-eye" for under-the-ice operations. This closed-circuit television system enables the crews to "see" the perpetually dark underside of the polar ice pack.

Although underwater TV assures *Washington* and other FBM subs of safe sailing under the ice, FBM subs are also fitted with special stabilizing equipment that guarantees them smooth sailing even in storm seas while on the surface. They are equipped with an automatic torque-resisting device known as a gyro-stabilizer that is mounted within the ship's hull. A sensing gyroscope

Nuclear Subs Should Stock Up on Alphabet Soup

When *uss George Washington*, our first Fleet Ballistic Missile submarine, was commissioned on 30 Dec 1959, the alphabet symbolizing the Navy's Nuclear Fleet was increased.

Washington's SSB(N) designator was added to a list that already includes SS(N), SSR(N) and SSG(N).

For the uninitiated, "SS" is the designation for submarine. The parenthetical "N" denotes nuclear powered. So far, the "R" is applied to only one nuclear sub—*uss Triton*, SSR(N) 586. It stands for

radar-picket. The "G" designates subs designed for launching the *Regulus* guided missile. Now being used in the Fleet.

The latest, "B" represents ballistic-missile firing and is applied to a new class of submarines of which *Washington* is the lead ship. This class is capable of firing the 1500-mile *Polaris* missile from either surface or submerged positions.

Washington, the SSB(N) 598, and her sister ships are 380 feet long and displace 6700 tons while in a submerged position.

picks up the first indication of a rolling motion and activates a hydraulic system which resists the rolling force of wave action and keeps the 380-foot submarine on an even keel.

ANOTHER WATCH DOG aboard *Washington* is the complex of electronic brains which make up the missile control station. Here are the devices which will maintain a constant check on the operational readiness of the missiles stowed in their launching tubes. Light signals warn of substandard conditions in any part of the system.

Each of the 16 *Polaris* missiles and their subsystems aboard *George Washington* will receive regular checks by the diagnostic electronic brains.

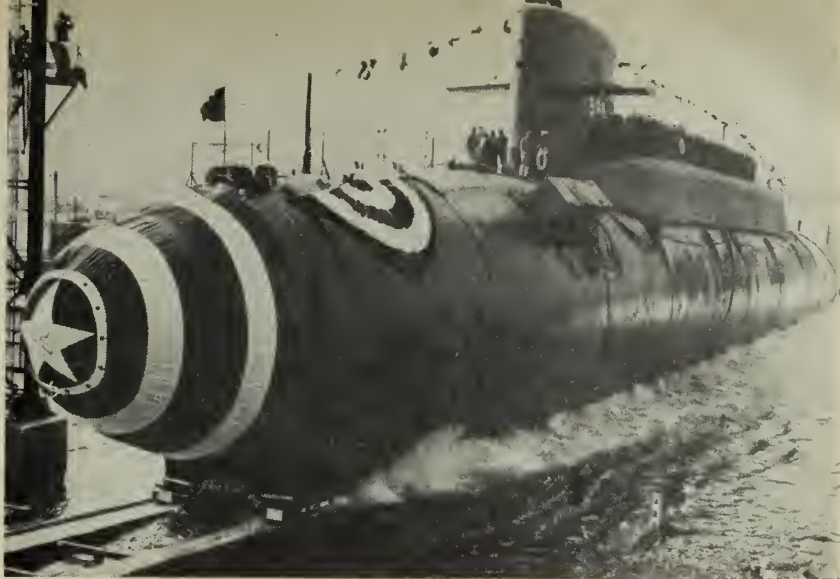
When the *Polaris* ballistic missiles shoot out of the vertical launching tubes aboard *Washington* and are projected into space, the Diving Officer and Chief of the Boat manning a panel in the submerged ship must keep the sub from recoiling like a howitzer.

Although *Washington* will not become fully operational for another four months, all eight of her engineering officers have already experienced what it's like to stabilize a 380-foot sub when the 30-foot missiles are sent aloft.

During this training, each engineering officer and Chief of the Boat was given a near-hurricane sea condition under which to work and they were still able to perform adequately. A maze of red lights showed which missile had been selected to be fired. When the firing system was ready, the tube doors on deck were opened and the "bird" was on its way.

At the instant of launch, dials whirled to indicate tons of water being blown out to compensate for water pouring into the space vacated by the missile. An automatic compensation system accounted for this weight differential between missile and water but wave action and temperature gradients of the water at various depths still had to be counteracted.

For example: A one-degree temperature change can make a large difference in the ship's submerged weight and, since the water temperature changes at various depths, the ballast control operator must compensate by taking in or blowing out water to stabilize the submarine.



THIS IS NUMBER TWO—USS *Patrick Henry*, SSB(N) 599, slides into the water.

IN ADDITION to carrying *Polaris* missiles for their primary deterrent role, *Washington* and other FBM submarines—like all other naval units—will perform other tasks. For instance, they will be good underwater listening posts; they will have active and passive sonar gear which makes them effective ASW weapons; and they will be armed with torpedoes for defense as well as for offensive purposes.

Washington has a fire control system which features an electronic brain that controls the torpedoes fired from her four bow tubes. This system is built around a computer that can go into action instantaneously. Can be operated by one man in emergency situations.

Using sonar or a combination of several sensing devices the system can determine an enemy ship's position, direction and speed. The geometric problems involved in cal-

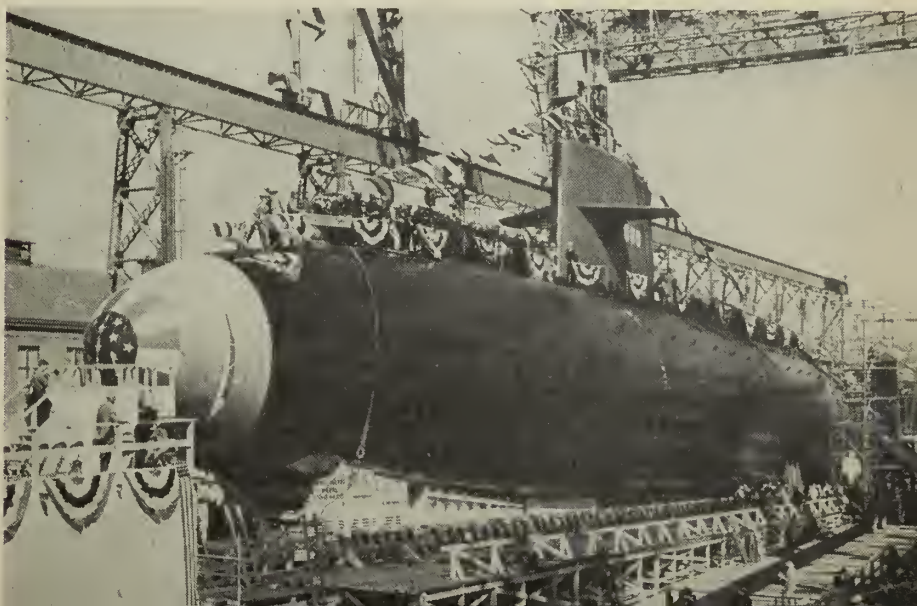
culating the best means of aiming the torpedo to hit the enemy ship are then solved by the computer. The operator is signaled when a solution has been obtained and then all he has to do is to push the appropriate button.

This system also includes a means of activating acoustical or homing torpedoes. When they have traveled a safe enough distance from the submarine, the torpedo is activated so that it will seek out the ship at which it is fired instead of homing on the submarine that fired it.

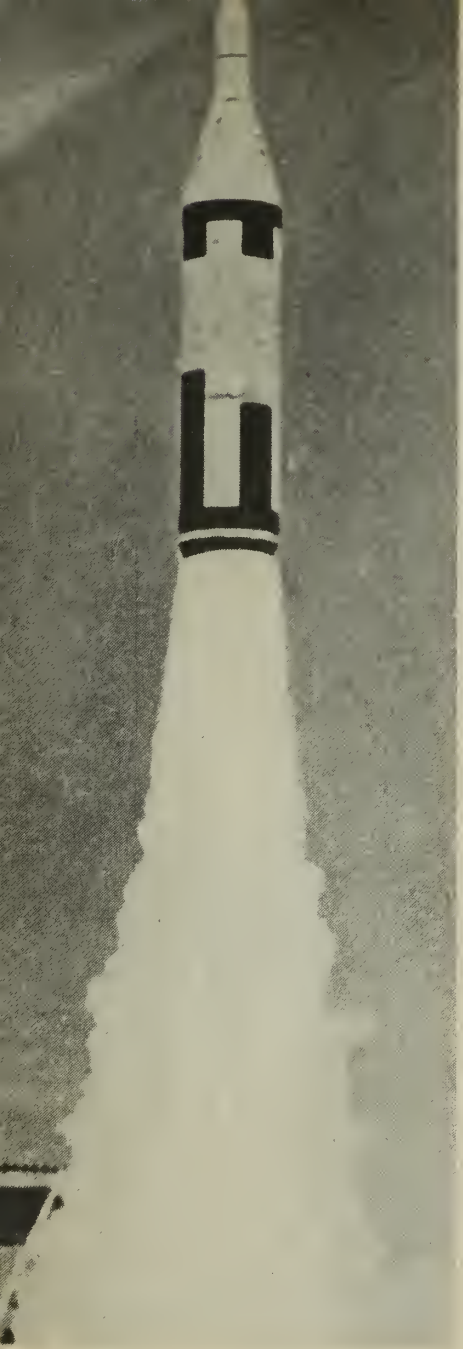
The Mark 112 consists of two primary units—the Attack Console in the ballistic missile sub's attack center, and the Torpedo Control Unit in the forward torpedo room. This advanced system is also being installed in all other nuclear FBM, attack and ASW subs now being built.

—H. George Baker, JOC, USN.

THIS IS NUMBER THREE—USS *Theodore Roosevelt* SSB(N) 600, is launched.



SP Plus PERT



WHEN IT WAS DECIDED that the Navy would develop a Fleet ballistic missile peculiar to its own needs, its designers in the newly created Office of Special Projects (in BuOrd) faced a number of problems which were also peculiar.

Three major considerations set *Polaris* apart from other outer space weapons:

- The missile had to be designed within the limitations of space and weight which would permit its being carried on board a submarine. This, in itself, required some very radical designs.

- It had to have the capability of carrying a nuclear warhead as its payload and, although it would have a range of some 1500 miles, it would have to be small enough to permit carrying a considerable number of missiles in a single submarine without increasing the size of that vessel appreciably.

- Its propellant had to be solid—as opposed to the liquid fuel systems used at the time to drive other comparable types of missiles. There was—and still is—no practical way to store or handle liquid missile fuels aboard a surface ship or submarine, except in small, completely sealed prepackaged units.

In addition, there were knotty problems concerning precision navigation, stowage, handling, launching and fire control gear.

AND—there was no time for a leisurely trial-and-error program of research and development. Each de-

cision had to be right the first time.

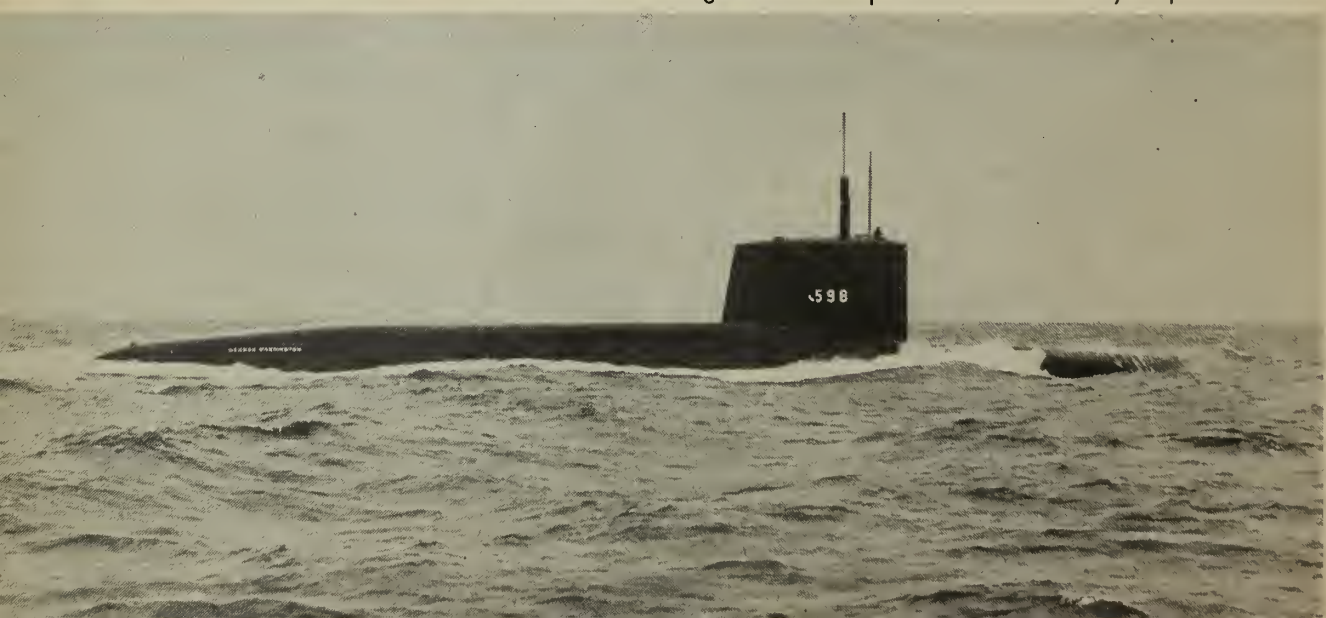
One of the first critical decisions to be made by the Director, Special Projects Office—RADM William F. Raborn, usn—concerned the problem of handling all the multitude of details connected with the program. It would be only too easy to become bogged down with paper work and red tape. Forms and reports, no matter how well written, do not, in themselves, build missiles.

A new approach was made. It was simple. It worked.

IT WAS BASED ON the concept of a small, highly specialized "Management Team." It used the facilities within and outside the military services which were already in existence and operating, rather than setting up new facilities of its own. To implement this, the Navy created a Manhattan-Project-type organization which reported directly to the Secretary via the Executive Member of the Navy Ballistic Missile Committee and which had over-riding priority and complete authority once approval of the NAVBMC was obtained. The NAVBMC, chaired by SecNav, provides policy guidance and is the sole reviewing authority for the *Polaris* program in the Navy.

The original group of men assigned to this project in SP was less than 25. Even today, it numbers only about 400, divided into four offices—the central one at Washington, plus three others; one on the West Coast, and two on the East Coast,

SPECIALIZED management team sped *Polaris* on its way to join the Fleet.



Gave Polaris Its Spurt

including a test group at Cape Canaveral.

Although its director reports directly to the Secretary of the Navy in the military sense, and policy guidance, program review and approval stem from the NAVBMC, the Office of Special Projects is administratively linked to the Bureau of Weapons. The latter, however, furnishes only administrative support and services.

As a result, the Special Projects Office—or "SP" as it is called—draws directly on a wide range of government facilities for design, development, test and training.

SP deals directly with industry in other technical matters and in procurement. It is, in effect, a "Management Contractor" within the Navy itself, the first such organization to be established. It is a funnel through which military needs and development skills of all types pass into the industrial facilities that produce and assemble the actual hardware, and back into the military facilities which provide the tests and training.

The project involves some rather staggering numbers. There are about 400 major programs involved, with literally thousands of sub-programs. These fall into seven broad categories: The missile itself, fuel development, guidance and fire control, launching and handling, navigation and communication, supporting activities, tests and training.

THE TIGHT TIMETABLE allows no margin for guesswork or slippage. Each item must be at the right place, in the right degree of completion, at the right time. And every item must be developed and obtained outside of the SPO itself.

The core of the programming and control setup rests on simplification of four fundamentals of planning, coordination, evaluation and communication.

A form was developed in SP to organize the planning job. It provides very simple arrangement of the elements of each specific program, such as what is the job to be done; what it consists of; what it will cost, and when each step involved must be completed. It also lists who must do the job; who must provide help

or support, and who should know what's going on so that he can do his own job better.

There are a number of "levels" at which these forms are used, each one breaking down a basic project into greater and greater detail, so that every phase of the project is covered by coordinated, organized planning following the same set of ground rules.

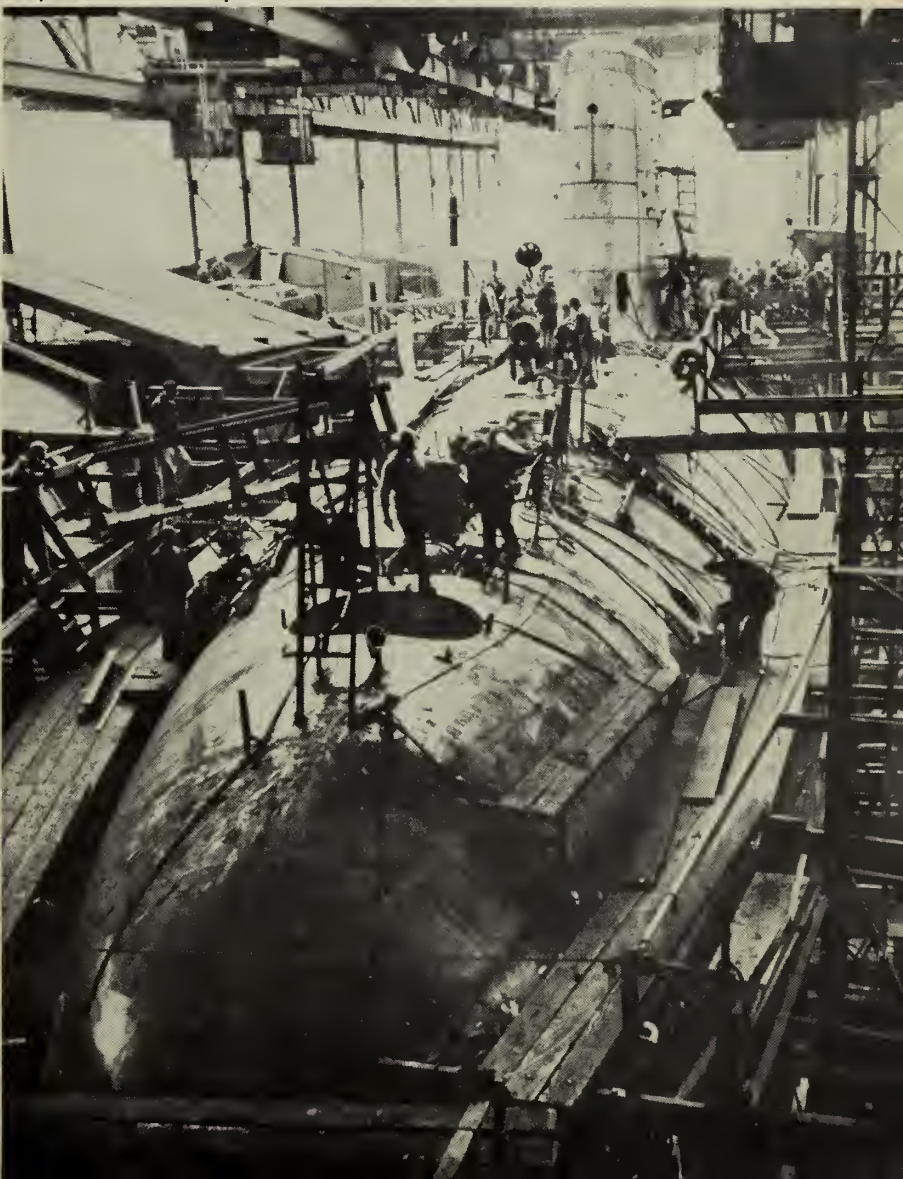
WITH THE SIMPLIFICATION of the programming, there has been an equal simplification of the reporting function. Here, too, some new gimmicks have been used. With some 3900 contractors engaged in developing or making every conceivable

type of component, hundreds of thousands in all, a small "management team" could very easily grow into a large "management team" in simply keeping track of the progress of these items. This has not happened.

To tie the reporting of individual projects as closely as possible to the demands of the program as a whole, a very simple "qualitative" scheme of reporting and charting has been devised, so that a diversity of elements could be evaluated and compared realistically and quickly.

On page 13 a typical chart shows where a project stands as of a specific date. It breaks the status down into four broad qualitative cate-

FAST WORK—SP's organization has accelerated the many-phased *Polaris* Project toward completion. First FBM submarine was built in record time.





POLARIS SKIPPER—RADM W. F. Raborn, USN, director of the *Polaris* missile program, discusses *USS George Washington* with CNO, ADM A. A. Burke.

gories, each identified with a simple, understandable phrase. It takes no study or special indoctrination or "key" to find out what the chart reports, basically, about its program.

The four phrases, however, do have a pretty specific meaning in SP.

"In good shape," says in three words, approximately this: "Everything I proposed to happen last week that I thought would represent progress did happen . . . I am happy the way things are going."

"Minor weakness" might be paraphrased as: "Something happened that I didn't think would happen . . .

But this is a relatively small matter that I can take care of without help."

"Major weakness" says, in effect: "Boss, I need your help." And finally, "Critical" can be translated into: "Boss, *you're* going to need help."

FROM THE PRACTICAL standpoint, a mere glance around the management center will not only indicate the existence and degree of trouble spots, but also the level at which these demand attention. It is a simple system, but it has worked.

It is, incidentally, a system which has attracted much attention in the field of management. The other

armed services and the business world have been watching the progress of the *Polaris* program with particular interest in the efficiency of its management. Universities and colleges have described it in detail in their business administration courses and it has been the subject of many articles in business and management publications. Representatives from Sweden, England, Canada, SHAPE, Israel and Venezuela have been interested observers.

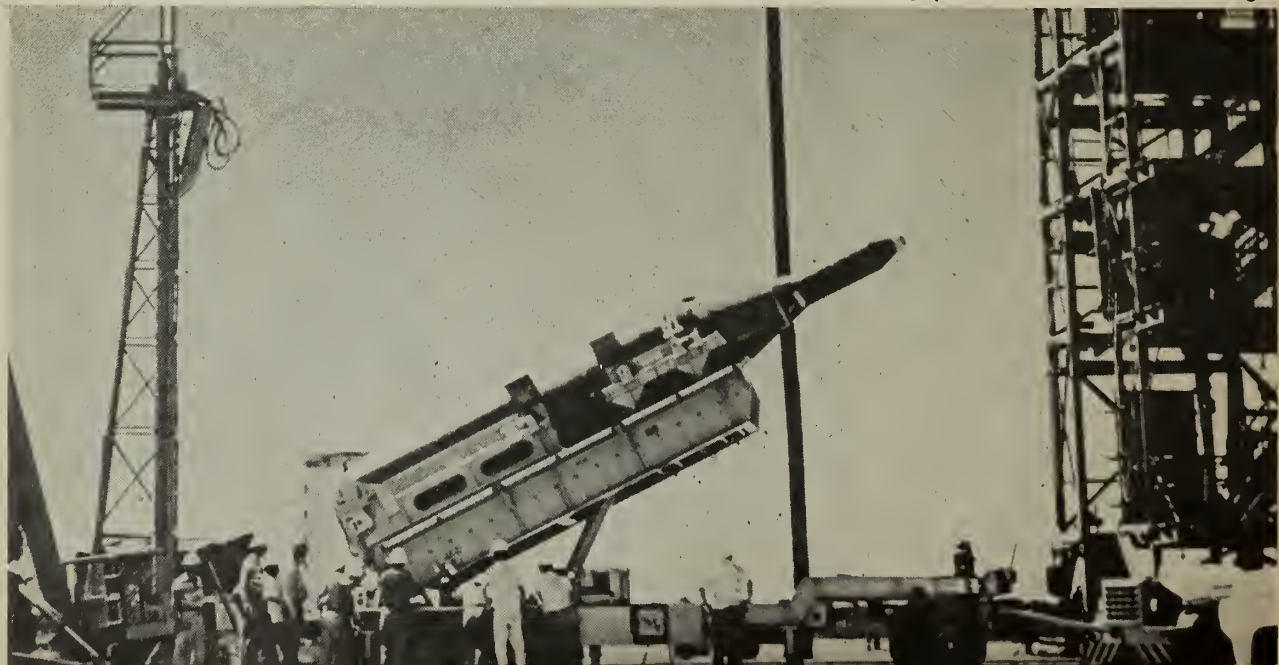
This concept of reporting has been applied also to the reports of the various contractors and contributing agencies. As a result, the status of thousands of components of varying complexity and importance can be evaluated in terms of the ultimate qualitative appraisals into which any figures, or dates, or percentages must be translated before they become meaningful to those who must do something about them. (Action is not taken on figures, but on the *situations* which these figures reveal.)

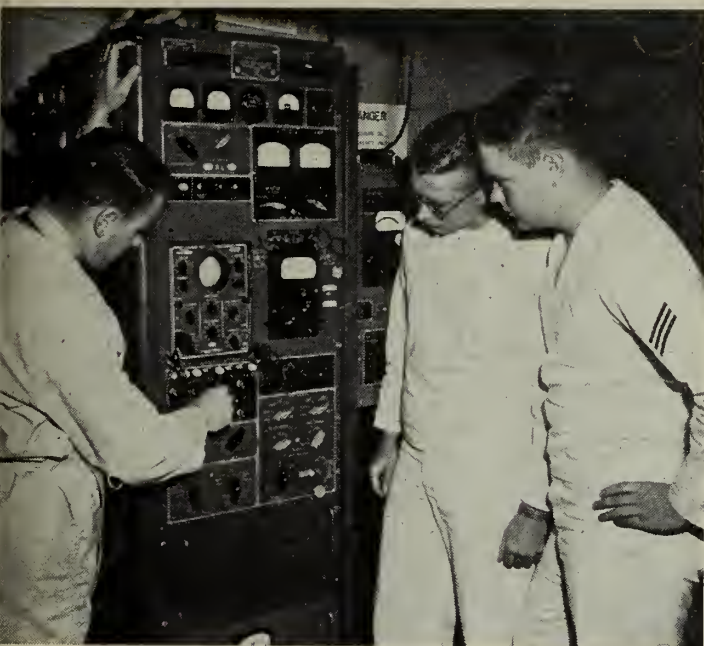
By having the same terms used at every reporting level, and by having these terms have a common meaning, a great deal of misunderstanding and slippage has been averted.

The simplification of programming and reporting has resulted in a similar simplification of communication. As a matter of fact, every Monday morning a staff conference is held at the SP management center in Washington at which the various project officers meet and report.

The average time of each report is about eight minutes, with each interested activity receiving both the programming format and the report-

TESTING STAGE—*Polaris* test vehicle is raised from flat bed trailer to launching pad at Atlantic Missile Range.





MISSILE AND MEN—Project included thousands of sub-programs from construction of *Polaris* to training of Navymen.

ing chart. These, incidentally, cost about a cent apiece to reproduce, and are worth many times their weight in gold in time saved, confusion averted, and jobs not held up through lack of communication.

SINCE THE *Polaris* program, like every project, requires both money and careful management of the money, similar simplifications have been introduced in determining the funding requirements and in keeping track not only of the money handled, but also of all resources, such as personnel, facilities and supplies.

However, management by SP involves more than planning, reporting, evaluation and communication. *It involves decisions.* In the case of SP, as in any project involving hun-

dreds of thousands of items and many, many dollars, to say nothing of its impact on national security, it involves many hundreds of decisions, military, technical, administrative, operational and fiscal.

One system which has been developed and installed in several complex branches of the program is a computer operation that solves, mathematically, a whole range of problems in programming and prediction. It is called "PERT," the four letters standing for Program Evaluation and Review Technique.

PERT operates on the principle of "simulation," wherein tens of thousands or even hundreds of thousands of individual calculations are made in minutes to measure the impact on delivery schedules of wide numbers of possible variant elements or vari-

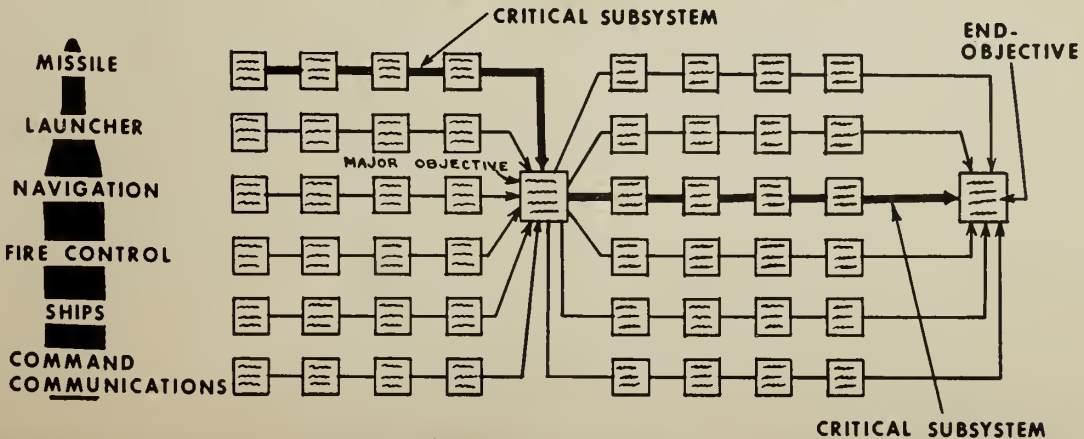
ants. It has already more than proved its worth in actually shortening delivery times, or in showing what was needed to coordinate the flow of components to meet the target. In short, it has told Special Projects just what can—or cannot—be expected under specific conditions, eliminating assumptions, estimates and guesswork. PERT requires *Polaris* contractors to do detailed thinking and analysis of the job requirements in advance.

Described thus, the system sounds simple. It is.

Has it worked? It has. Two years have been cut from the original timetable from the design stage to the first operational weapons system.

All principal scheduled dates have been met. This, in itself, is something of a record in missile development.

PERT OUTLOOK FOR FBM SUBSYSTEMS





SPECIALIZED training is needed to man FBM subs. Below: Navymen study new computer, (above) learn about missiles.



Training

WITH "BULLETS" which cost over \$1,000,000 each, fired from a \$100,000,000 gun, indifferent marksmanship could prove costly.

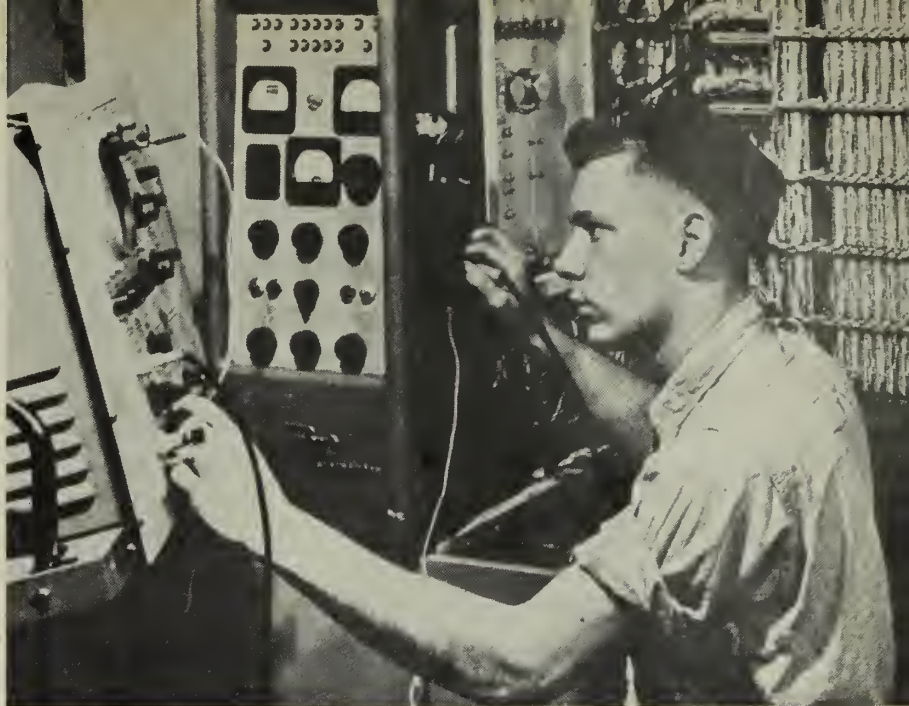
Those figures indicate the estimated costs of the *Polaris* missile and a Fleet ballistic missile submarine. At the controls of this missile and its mobile launching pad will be a team of well-trained Navy officers and enlisted men.

The Navy now has trained two crews each for three nuclear-powered FBM submarines. *George Washington*, SSB(N) 598, *Patrick Henry*, SSB(N) 599, and *Theodore Roosevelt*, SSB(N) 600. The training is new, and the two-crew (blue and gold) concept is new.

The nuclear-powered submarine has the mechanical ability to stay submerged and operating far past the capabilities of her crew. To realize her full potential, she must be manned by two alternating crews. (See page 8.)

More than a third of the crew of the FBM submarine, and nearly all the officers, get nuclear training.

The training these men receive is the same as for any other nuclear-powered submarine. It starts either at the basic nuclear power school in Vallejo, Calif., or New London, Conn. There, the men who were already qualified volunteers from the



LEARNING THE FBM WAY—Navy ET checks on Polaris sub-type navigation gear on board USS *Compass Island*.

Today's Nuclear Navymen

submarine force learn something about the field of basic nucleonics.

During nearly six months in a basic school, the men—they include HM (E-6 and E-7 only), MM, ET, IC, EM, and EN—learn about nuclear power plant construction, and the design, operation, and electrical counterparts of the system.

From this basic school, the potential nuclear-Navy sailors move to Idaho Falls, Idaho, for a 24-week operational course. There they study and train on a live reactor. This is a land-based prototype of the power plant of *Nautilus*.

From this school the men are assigned a nuclear-powered submarine. Some of them may be assigned to an FBM crew.

But Fleet ballistic missile submarines need more specialists than do regular nuclear-powered submarines. Each carries special navigation equipment, *Polaris* missile launching and guidance control equipment, and many other special features that are necessary for missile-launching.

These men, although not graduates of nuclear-power school, do begin as qualified submariners, and they do receive special training. They may be ET, QM, FT, GS, TM, SO, or RM.

With the exception of SOs and

RMs, men of this group start their training for the FBM program at the Navy's Guided Missile Schools, Dam Neck, Va. Men trained together in these schools generally serve together as a crew of an FBM submarine.

Some courses include more than one rate, but for the most part, single rates train together.

Here, for example, is the background an electronics technician gets.

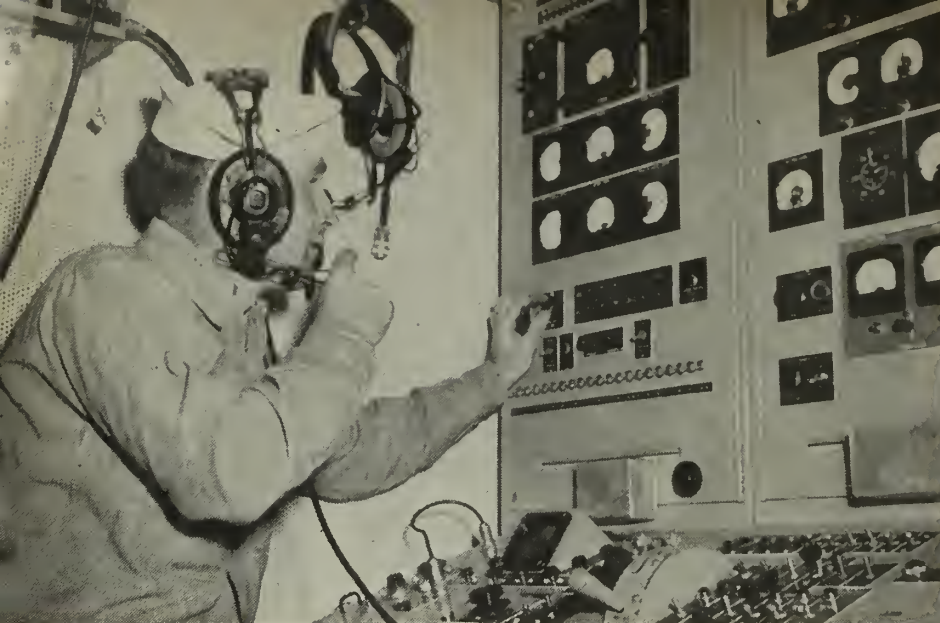
He first attends a three-week navigation sub-system familiarization course at Dam Neck. A six-week special technology course follows.

It is in the special tech course that he first comes in contact with new terms, techniques and devices associated with the program.

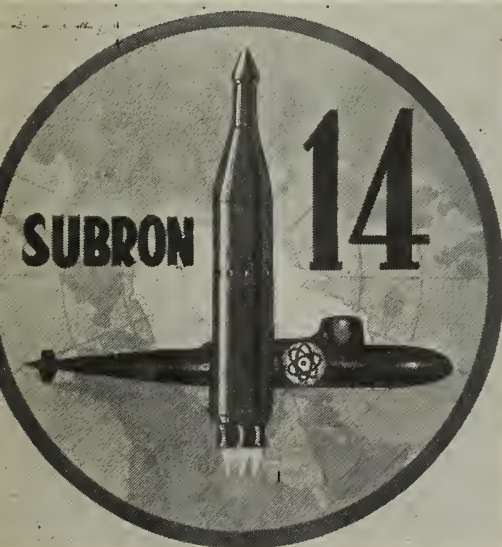
For relaxation, he brushes up on binary arithmetic, Boolean algebra, basic digital computer theory and methods, computer programming and

UNIFORM OF TOMORROW—FBM submariner of SubRon 14 models new uniform designed for enlisted crew members of Navy's *Polaris*-firing submarines.





MISSILE SCHOOL, Dam Neck, Va., training men for Polaris subs of SubRon 14.



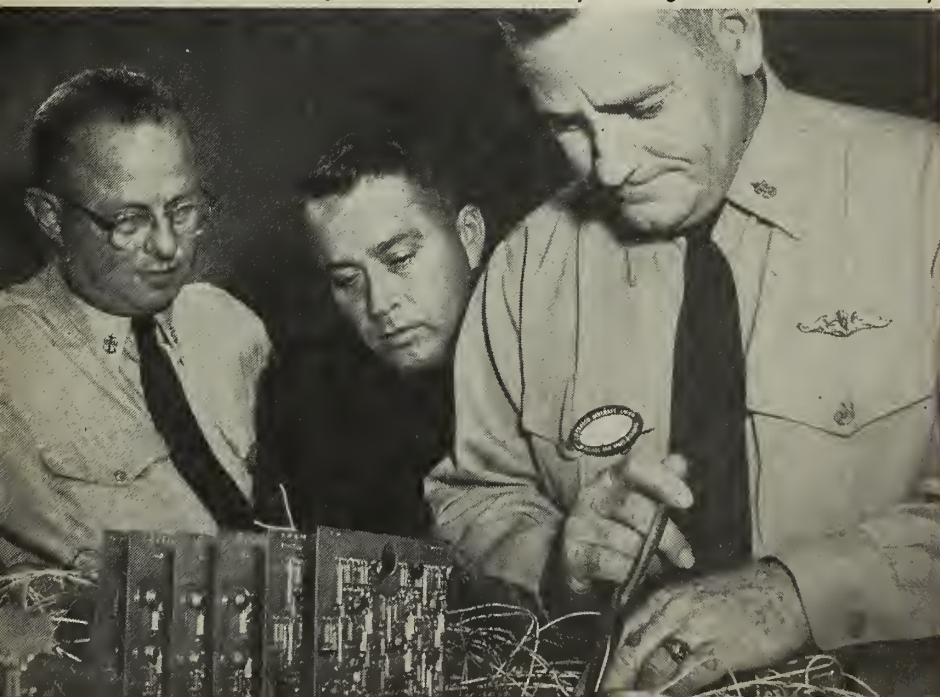
practical experience in maintaining computers, transistors, printed circuits, and inertial techniques and equipment used in the FBM program.

After these two courses, which are a general, over-all indoctrination on the FBM submarine and the Polaris missile system, the ETs move on to more specialized training.

At this point, the group is split up to receive different training. They become experts in one phase of the program. Then, when they are assigned to a crew, they will learn about additional special equipment through on-the-job training.

One group of ETs start a nine-week course learning about the ship's inertial navigation system (SINS.) This training is done at

SOME OF FBM sub gear is so new that Navy training must be done at factory.



either Dam Neck, or the factory where the gear was developed.

Another group of ETs leave Dam Neck and go to a civilian company where they learn to operate and maintain different types of navigation data simulation computers.

A third group spends nine weeks training on various other special navigation equipment either at Dam Neck or at a civilian factory.

From these schools, part of the ETs go for further training aboard USS *Compass Island* (EAG 153), which is equipped with navigation equipment similar to that which will be aboard the FBM submarines.

Quartermasters are first introduced to special navigation equipment at Dam Neck, Va., where they take a two-week course in navigation familiarization. From Dam Neck the QMs also go aboard *Compass Island* for additional training in the operation of special navigation equipment.

Fire control technicians also start at the Guided Missile School. They first take a one-week course in weapons system orientation, and then a six-week special technology course at Dam Neck. The special tech course is the same as that presented to many other ratings.

From Dam Neck, the FTs move on to Pittsfield, Mass., for a course in SSB(N) fire control. They train at the factory because the new equipment is not now available in Navy schools. It also gives the men the benefits of talking and working with the engineers who developed the equipment. Eventually, when the equipment is available, all training will be done by the Navy in Navy schools.

Many FTs go from Massachusetts directly into the FBM program. This can mean several things to students. They may be assigned to USS *Observation Island* (EAG 154) which is designed to test fire the Polaris missile; to Cape Canaveral, Fla., where Polaris is being tested; or to a building yard for further training while awaiting a submarine.

Guided missilemen, although already trained in guided missile theory, are also given special training. Like several other ratings, they begin with the weapons system orientation and the special technology courses at Dam Neck.

Part of the group then moves to Sunnyvale, Calif., where they study the maintenance and operation of

the electrical system and flight control of the *Polaris* missile.

The other group moves in the other direction. They go to Pittsfield, Mass., for nine weeks, where they study the FBM guidance system.

Torpedoman's mates also have an active part in the *Polaris* missile program. For years TMs have worked with torpedoes (nothing more than a guided missile itself), but now their missile will be shot upward through the water and into the air, rather than only through water to its target.

These men spend one week in the weapons system orientation course at Dam Neck, and then move on to another course at the same school on ordnance preparation. This course includes instruction in basic electricity and basic rocketry.

From Dam Neck the TMs travel to California for a seven-week course in missile ordnance and launching. They are taught how to handle *Polaris* between ship and pier, or between ships. They also study the missile-launching system.

Last of this special group of men who undergo training is the radiomen and a small group of electronics technicians.

These men are trained to operate and maintain new-type communications equipment which has been developed specially for the FBM program. A combination of short courses on this equipment take the men about 12 weeks.

Some other crew members, who may not have gone through any of this special training, attend advanced training in their own rates before they join a crew.

Although the men who have taken this special training are undertaking new responsibilities, they will, of course, keep their same rates. As a result of this training, they will be assigned special NEC numbers which have been set up for these men. The new enlisted classification numbers are:

- TM - 0762—Fleet Ballistic Missile Ordnanceman.
- FT - 1195—Fleet Ballistic Missile Fire Control Technician.
- GS - 1321—Fleet Ballistic Missile Guided Missileman.
- GS - 1322—Fleet Ballistic Missile Guidance Technician.
- ET - 1551—Inertial Navigation Technician - Analog.
- ET - 1552—Inertial Navigation Technician - Digital.



ISLAND SCHOOLS—*USS Compass Island* is training men on new navigation gear. Below: *USS Observation Island* (AG 154) test fires a *Polaris* dummy.

- ET - 1553—Inertial Navigation Technician - computers and auxiliary equipment.

- ET - 1558—Fleet Ballistic Missile Instrumentation Technician.

- PH - 8141 — Instrumentation Photographer.

Training does not stop when a man is assigned to an FBM submarine crew. The men will continue their studies at the shipyard where their submarine is being completed.

Later this year a *Polaris* team trainer should be completed at New London, Conn., that will enable the entire crew to continue operational training in both ship qualification and the weapons system.

This device will keep one crew busy while the other is at sea. As in the rest of the Navy, the training of FBM men never stops.

—Erwin Sharp, JO1, USN.





'SPACEFLYER' takes turn at controls.

GETTING

VISUALIZE, IF YOU WILL, a cylinder some nine feet long and about five feet in diameter. It resembles very closely a recompression chamber. It isn't quite. A bulkhead divides the interior into more or less equal parts. One portion holds two midget-sized bunks no more than four feet long, 30 inches wide.

There are two stools inside, painted hospital white, as is most of the interior. In the forward compartment are control panels, gauges, dials, wheels, radar-scopes and other gear. Mounted near the overhead in each compartment is a television camera, so placed that it scans the entire area. Indirect lights are always on. There are no portholes. Entrance is gained through a 36-inch hatch.

In this chamber six Navymen lived, slept, ate and worked for eight days. The space works out to some 60 cubic feet per individual—about the same area as the inside of a telephone booth.

Not for you, you figure.

But somewhere in the Navy today are men who, before their 20 years have expired, may be traveling

through outer space in some type of vehicle. Or they may be crew members of a platform suspended somewhere in the sky.

The six men mentioned above were guinea pigs—and volunteers—for one of the many steps necessary before actual space travel can become reality. So far as we know, this is the closest we have yet come to conditions as they will be found in our first space ship—minus, of course, the actual travel.

THE SIX SAILORS spent more than a week cooped up in those two small rooms, completely isolated from the outside world, in a test conducted by the Air Crew Equipment Laboratory, a unit of the Naval Air Material Center, Philadelphia. The experiment had a two-fold purpose—to evaluate psychologically and physiologically the reaction of men to various stresses under a prolonged period of isolation, and to test a radically new and different method of oxygen supply.

No test, of course, can completely simulate actual conditions. This was no exception. Three elements miss-

ing from this experiment which would exist in a real space flight were the acceleration and deceleration involved in take-off and landing, and the weightlessness which exists in outer space travel. Psychologically, too, there was another factor, impossible to overcome. The men knew that this was just a test. Therefore they couldn't be expected to meet its problems with the same starkly serious attitude that they would a real space flight.

ACEL's scientists made the test as realistic as possible, however, and evaluated their findings with the test conditions in mind.

TWO MONTHS BEFORE the test was scheduled to begin, the lab published a notice among all NAMC personnel, briefly explaining the projected experiment, and asking for volunteers.

An original group of more than 40 men who responded were given a battery of tests, designed to investigate their personality factors, anxiety level and problem-solving ability. At the conclusion of these tests the men were told more about what the experiment would involve,



HERE'S HOW Navy volunteers took a space cruise at Air Crew Equipment Laboratory located at NAMC Philadelphia.

A TASTE OF OUTER SPACE

and 24 of the group still elected to volunteer. More tests followed, and six were finally selected.

They were: *Nicholas H. Noche*, AB1, 29, Newark, N. J.; *Robert F. Mullett*, AB2, 22, Pittsfield, Mass.; *William F. Lamb*, AK3, 22, Dorchester, Mass.; *Charles T. Cooper*, AK3, 21, Clayton, Ind.; *Richard Fleschner*, SN, 19, Queens, N. Y.; *Robert A. Breithaupt*, AA, 18, Philadelphia, Pa.

These men were selected because they possessed emotional stability to a high degree. The tests they had undergone closely resembled the type used to select submarine and aviation personnel.

It has been said that spaceship duty will be a good deal like submarine duty—close confinement and long periods of time cut off from the natural elements. The men best suited for this kind of duty are solid, unemotional types, what the Navy experts would call "squared away sailors."

A few days before the test got underway the six selectees were put on a four-on, four-off schedule, to accustom them to the routine before they entered the test chamber.

AS MENTIONED EARLIER, there was almost complete isolation inside the chamber. There were no watches, clocks or radio. Meals were passed in through a special airlock. There were assigned tasks for each man to perform—they rotated from job to job, to a sleep period, to a rest break or a meal hour according to a code schedule flashed to them from the outside.

For this purpose the men were numbered one through six. When a new schedule was announced, numbers one and two, for example, would shift to the two bunks for a four-hour sleep period. Numbers three and four would take over the watch on the radarscopes. Number five would move into the pilot's seat, steering a pre-determined course. Number six would put in a stint on the radio headset.

Evaluation of the physical and mental responses of the test subjects was the responsibility of ACEL's psychology department. Many people lent a helping hand in one form or another, but the major portion of the work involved in preparation, observation and evaluation fell on ACEL's Deputy Director, Cdr. R. L.

Burdick, USN; LTJGs Bert Lowi and Tom Gallagher, both Medical Service Corps psychologists; and Dr. Neal Burns and Mr. Ralph Ziegler, civilian psychologists. At least one of the laboratory's medical officers was always present outside the chamber during the entire test.

In addition to two television monitors reflecting the scenes captured by the cameras inside, the testers had a couple of other gimmicks to help them keep track of their subjects. One of these was a hidden microphone, which was planted in the chamber without the guinea pigs' knowledge. Thus uninhibited by any idea of being overheard, the men felt free to unburden themselves.

Every spoken word was picked up outside via a set of earphones, logged, and simultaneously tape-recorded. Understandably those tapes are rich in humorous, spicy and—to a psychologist—revealing comments.

ANOTHER CONTINUING CHECK was achieved through measurement of skin responses. According to the medical experts, the skin is a very



GOAL—Navy experiment furnished valuable info for future space flights.

accurate barometer of a man's physical and mental state. As the subjects went about their varied tasks, they carried attached to their arms and legs a type of electrode, or small clamp. Wires led from these electrodes to a computer outside. In

much the same manner in which an electro-cardiograph mirrors heart action, this machine registered the men's reactions as reflected by their skin condition throughout the eight days.

In their pre-test briefing the men

were told that their work, rest, eat and sleep periods would follow a rigid four- and eight-hour schedule.

One of the more important points about which the psychologists wanted more information, however, was the ability to keep track of time under these circumstances.

They adhered to the schedule strictly the first two days, then began shifting times slightly, and fouling up the meal rotation.

Some of the men, it was found, were better able to keep track of time than others. A couple of them were usually within half an hour, or even closer, in their estimates. Even when the schedule was altered to shift job and sleep periods after two and a half, three or five hours instead of four, or when two lunches were served in a row, or when breakfast was sent in the evening, they weren't fooled a whole lot—during the entire test no one was more than two hours off in his guesses as to the time.

Air Crew Equipment Lab Has Been Busy A Long Time

The Air Crew Equipment Laboratory got its start in 1942 as the Aeronautical Materials Laboratory, with but one Naval Flight Surgeon attached. His assignment was in connection with an altitude chamber and cold room then being developed.

As the years rolled by, projects were assigned which necessitated more facilities and more personnel. In a gradual evolution, the activity moved through two more stages—first as the Aeronautical Medical Department, then as the Aeronautical Medical Equipment Laboratory—until 1956, when it was given its present designation.

ACEL's energies are concentrated in four main areas—*escape and crash safety, medical sciences, safety and survival equipment and special project sciences*. They are particularly active in the fields of human engineering, crash protection, high altitude and temperature physiology, emergency escape devices, oxygen equipment, flight clothing and pilot's personal gear, such as anti-exposure suits, full pressure suits and helmets.

The lab's guiding principle is that the problems inherent in such an ambitious program can only be successfully attacked and solved by combining the varied skills and

training of flight surgeons, physiologists, psychologists, engineers, aviation survival equipment technologists and physicists.

These technicians work with the most advanced tools yet devised. Included are: a seat ejection tower; a high acceleration catapult; specialized altitude-temperature chambers, one of which has been fitted out for confinement and habitability studies concerned with space and orbital flight; a combination explosive decompression and environmental chamber; an all-weather room; a cold room; a sound room; an electrostatic shielded room and a vertical drop tower.

This combination of technicians and equipment has made possible many significant contributions to U. S. space exploration. Among them: development of the full pressure suit and associated equipment permitting sustained flights above 45,000 feet without cabin pressurization; an improved oxygen breathing mask; physiological and psychological studies aimed at determining human tolerance to various stresses; a trajectory analysis for high performance naval aircraft; a sea-level escape system; development of protective helmets, summer and winter flight clothing, and anti-exposure suits.

THERE WAS FAR LESS irritability and friction among the men than might be imagined. Although the subjects were only casual acquaintances before the test began, they became surprisingly close as a group under common stress. In much the same manner that the crew of a ship, plane or submarine reacts in battle, whatever hostility they generated was directed not at each other, but at a common "enemy"—the watchers outside.

There was a minimum of griping and hostility through the first six days—certainly no more than the normal, expected amount—and it was the seventh and eighth days that yielded the doctors most of the information they were seeking. There was a good reason for this—the men had thought they were getting out after six days.

While not telling a deliberate lie, the doctors had very carefully planted that impression in the men's minds before the test began. As we mentioned earlier, the guinea pigs were thoroughly aware of the approximate time, and it was obvious from their overheard conversation that they all were looking forward to being "sprung" the sixth day.

What the doctors wished to know, though, was how the subjects would react to the unknown.

A similar test staged some 18 months ago had demonstrated that men could remain reasonably cheer-

ful and competent during isolation so long as they were kept busy at simulated tasks to combat boredom, and provided they had a goal in mind—in other words, when they knew they would get out at a definite time.

IN THE CURRENT EXPERIMENT the evaluation team wanted to find out what might happen if a future space flight ran into some kind of difficulty, and the crew was faced with the possibility of being trapped in space indefinitely. Thus, notes passed out through the food slot claiming that the sixth day had arrived were completely ignored. The men had no way of knowing, for hours on end, whether anyone was still outside or not, and when they would be let out, if ever.

There was no panic. But there was reaction, and plenty of it.

Morale dropped noticeably in those last two days, and, with lack of motivation several of the men either stopped performing their tasks almost entirely, or else went about them in a perfunctory, disinterested

fashion. Since the men weren't aware that they could be heard, they began discussing various plans which would force their tormentors to free them.

There was never any big danger of the situation getting out of hand, however, or of any danger to the subjects themselves—if any of them had shown signs of cracking under the strain, the chamber could have been unsealed at a moment's notice.

Probably two main deterrents kept even the most immature and excitable of the men in line. For one thing, they were told a little white lie before the test started—that, once the door to the chamber was sealed and the test was begun, it would take anywhere from 20 minutes to half an hour to open it again. Apparently they believed this to be true, and felt that if they could take it for another half hour, they could take it as long as was necessary.

Secondly, as is the case whenever a group of men are under stress, a natural leader evolved for the others to rally around. In this instance it was Nick Noche. ACEL's

doctors aren't sure how much the fact that Noche was a PO1 had to do with it, but they feel it was mostly because he was by far the oldest of the group, had had more time in the Navy, and kept a cool head. Whatever the reasons, the other men depended on him in time of crisis, and the doctors think it was his leadership through example which kept things more or less on an even keel.

THIS WAS ESPECIALLY true when a completely unexpected problem popped up on the seventh day. A wire in an electronic panel board installed inside the chamber shorted out and started to smoke. At this stage of the game they were a tired, disgusted, discouraged band, and this was one blow too many.

The consequences might have been serious, but it was here that Navy training paid off. Noche's voice was heard cutting through the babble, barking orders to man battle stations and prepare to fight fire. In the few seconds it took the outside observers to cut off the

SPACE CREW — These six Navy men volunteered to take simulated space flight to test the confining quarters of a mock ship. Rear, left to right: R. A. Breithaupt, AA, USN; R. F. Mullett, AB2, USN; N. H. Noche, AB1, USN; and C. T. Cooper, AK3 USN. Front: R. Fleschner, SN, USN; and W. F. Lamb, AK3, USN.





SIMPLE DAILY ROUTINES, such as eating and sleeping, presented difficulties in the tank's confined quarters.

power to that panel, he had the situation under complete control.

Noche doesn't feel he did anything special. "I was just as anxious to get out of that place as any of the others. But I didn't see what good griping and moaning would do. Besides, we volunteered, and I just figured we had a job to do, that's all."

There's a sidelight here, too. Noche's wife was at the family home in Newark, with the birth of their third child imminent.

Although he was worried about her, and sent out a number of notes

asking for an up-to-date check of the situation, he hung in there and stuck to his job. (It was a boy.)

Noche admits that it was rough and that he would think twice about volunteering again, as would the others. None expressed any burning desire to make a real space flight.

Mullett says he'd go if he could be first. The others would rather hedge their bets a little—"Let someone else go, and if he gets back okay, then we'll see."

LACK OF SLEEP bothered all of them. Most had trouble adjusting to

sleeping only four hours at a stretch, and the stuffiness, light and noise in the cramped quarters made getting to sleep difficult. The two tiny bunks resembled linen shelves more than beds. Most of the men claimed they grabbed more sleep sprawled on the deck than they were able to get in the bunks.

They rated the chow "fair." Supper was good, they said, but there was a lack of variation in breakfast and lunch—the same cereal every morning, and sandwiches for lunch.

This was just another of the subtle stresses imposed upon them.

Four Thousand Navymen, Scientists & Technicians of NAMC

The Air Crew Equipment Laboratory, featured on page 20 in this issue, is just one of five major research and development components of the Naval Air Materiel Center.

NAMC dates its pioneer role in naval aviation from its establishment in 1917 as the Naval Aircraft Factory. It was originally founded by the then SecNav, Josephus Daniels, to supplement the production of aircraft by private industry during World War I.

In 1917 NAF encompassed but 160,000 square feet, and the first buildings were built at a cost of about a million dollars. Today the Center, which acquired its present designation in 1943, includes 114 buildings, 60-odd other structures and an auxiliary landing field. It occupies more than 500 acres at the eastern end of the Philadelphia Naval Base, and has increased its value some 65 times.

Through more than 40 years of operation NAMC's energies have been aimed toward one primary mission—the advancement of the combat potential of naval aviation

in the Fleet through research, development, modification, evaluation and testing.

The four components which, with ACEL, form the research and development heart of NAMC are: *Naval Air Engineering Facility* (Ship Installation); *Aeronautical Materials Laboratory*; *Aeronautical Structures Laboratory*; and the *Aeronautical Engine Laboratory*.

NAMC is manned by nearly 4000 naval personnel, scientists, engineers and technicians. They are supported by a force of skilled shopmen representing all the arts and trades of modern military aviation. In addition some 13 different departments and offices supply administrative support and services to the Center and its leading tenant the Naval Air Technical Training Unit, which is under the command of NATTU Memphis, Tenn.

The Aeronautical Materials Laboratory carries on chemical and metallurgical engineering research covering such subjects as plastics, rubber, textiles, camouflage coating, special aircraft lubricants, aluminum, magnesium, electroplating

and hydraulic control systems.

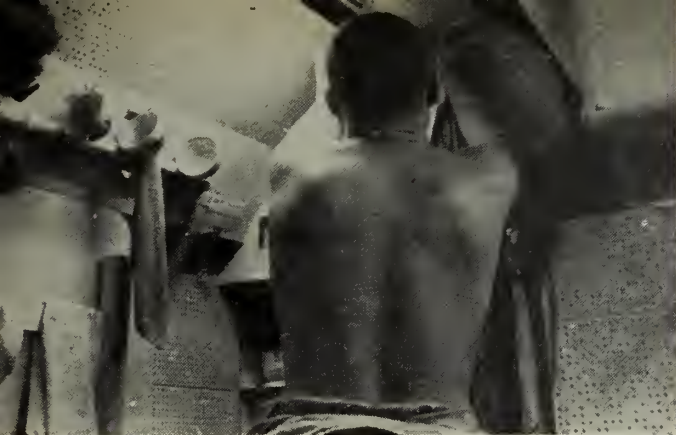
Experiments at AML in recent years have produced, among other items, a camouflage paint which defies infrared detection; an abrasion-resistant transparent plastic for cockpit canopies; a new type of lacquer which prevents surface cracking in an aircraft during high speed flight.

At the Aeronautical Structures Laboratory the emphasis is on design and development of structures for existing and future naval aircraft, including missiles and other space vehicles.

Here, aircraft structures are subjected to heat, cold, vibration, weight, compression, acceleration, deceleration and other stresses in a continuous search for stronger and better metals and alloys.

A high temperature research facility is now being installed, which will be used to study the effect on aircraft structures of the extremely high temperatures involved in supersonic flight.

Mechanical, electrical, aeronautical and chemical engineers who staff the Aeronautical Engine Lab-



TIGHT SQUEEZE — Eight days seemed like a long time to the Navy spacemen but they stood the test well.

Their pet hate, though, seems to have been reserved for a type of cherry tart they got each and every day for lunch. For some undetermined reason (the doctors don't know, and the men themselves aren't sure now) this inoffensive bit of pastry became a symbol of their confinement, and they aimed a good share of their resentment at it.

One thing's for sure. If the cherry tart manufacturers had to depend on this group for a market, they'd go broke in a hurry. Each man claims he'll never look at another one.

Another strain, and a big one,

was the ban against smoking in the chamber. All of the men smoke—some are two-packs-a-day men—and all agreed it was rough to go without, especially the first few days.

SO MUCH FOR the physical and psychological aspects of the experiment for awhile—what about the other and equally important objective, the test of the new oxygen-breathing apparatus?

To get the lowdown on this we talked to ACEL's Director, Captain R. A. Bosee, USN.

"One big obstacle, probably more

than any other, has stymied our space probes for a long time," CAPT Bosee told us.

"That was the problem of providing sufficient oxygen for sustained space and orbital flight."

The Captain explained that present oxygen systems have two main drawbacks; because the oxygen is liquid it must be contained in large bottles or tanks which are both heavy and bulky; and liquid oxygen evaporates rapidly.

These characteristics imposed rigid limitations on the amount of time a man could spend in space for a very simple reason: If a capsule were built large enough to hold all the oxygen required for a sustained flight, that vehicle would be so big it would be impossible to boost it into orbit.

What was needed, of course, was oxygen in some condensed form, and that's exactly what ACEL has come up with. The technical explanation would probably take several pages, but boiled down, it works something like this: A chemical which easily releases oxygen has been compressed into tiny, solid granules or pellets. These are placed in canisters. Let's let CAPT Bosee explain what happens then.

WHEN WE EXHALE, our breath contains some unused oxygen, carbon dioxide and moisture. In a closed space, the build-up of carbon dioxide could be dangerous. As the air in the chamber is pumped through this new apparatus, it removes the carbon dioxide and excess moisture and releases new oxygen. In this manner, with considerably less weighty equipment than previously used, man could survive for extended periods, independent of the earth's atmosphere."

A beautiful theory, this. Moisture and carbon dioxide released through normal breathing in turn release the

Work on Flight and Space Problems

oratory confine the major part of their research work to the fields of aircraft power plants, associated accessories, systems, and fuels.

Both turbojet and propeller engines are tested for performance characteristics and durability in 79 different areas, including altitude chambers, cold rooms, dynamometer (power measurement) rooms, endurance cells, and compressor and combustor rigs.

These tests at AEL have led to discovery of new fuels, combustors and starting systems with higher capabilities using less weight and storage space. They've also contributed to carrier flight deck safety through development of a combustion chamber for turbojet engines which eliminates afterfires.

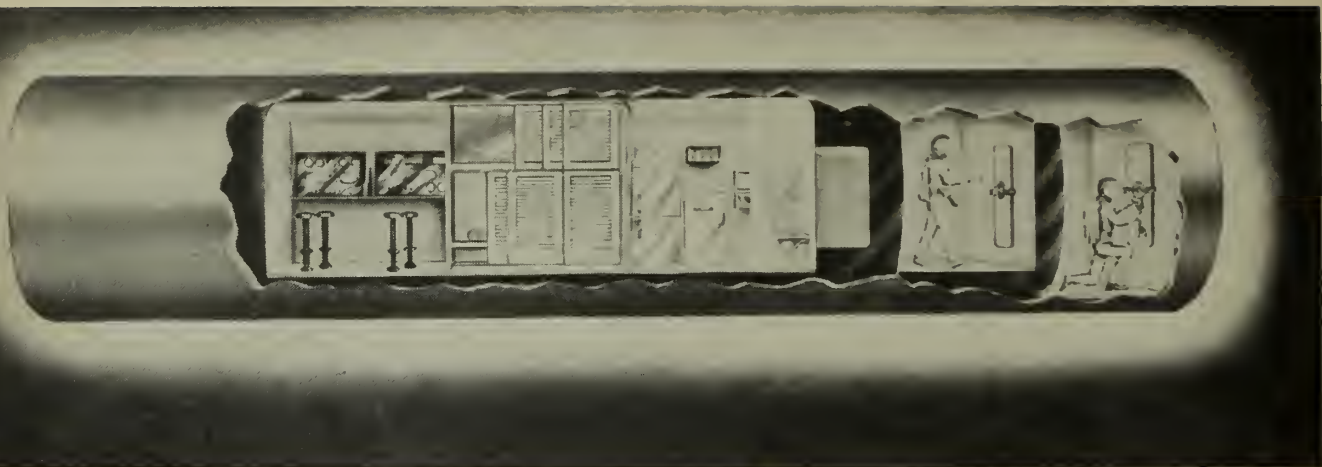
Naval Air Engineering Facility (SI) installed and tested the steam catapults aboard the first U. S. aircraft carriers to use them, *uss Hancock* and *Intrepid*. Scientists working here have developed all arresting gear used by the Navy since 1917; developed the experimental powder catapult; designed, developed and tested all hydraulic cata-

pults used on our aircraft carriers throughout World War II and the Korean conflict; conducted research on automation of shipboard missile handling systems and designed and developed the *Polaris*-launching system power plants.

NAEF engineers must continually develop newer and more powerful catapults and arresting gear to accommodate the faster, heavier planes now being built and planned for the future. In addition, they're responsible for the design and testing of missile launching and recovery systems. Tests are conducted both in NAEF labs and at next-door Mustin Field.

NAMC's scientific activity ties in neatly with experiments conducted in other and related areas at the Naval Air Development and Material Center, Johnsville, Pa., some 20 miles to the north. The Aeronautical Instruments Laboratory and the Aeronautical Radio and Radar Laboratory are among facilities located there.

Both NAMC and NADC operate under the organizational control of the Bureau of Weapons.



OUT OF THIS WORLD—Drawing shows cut away of simulated ship used to study Navyman's space flight problems.

oxygen into the air (from the pellets). Unwanted carbon dioxide and excess moisture are absorbed by the same pellets, without loss of oxygen from evaporation. Literally the same air, constantly replenished and refreshed, is breathed over and over again in continuous cycle. And, best of all, only three ounces of the pellets are required per man per hour.

Does it work? It most certainly does. Sensationally.

All of the oxygen breathed by the six guinea pigs during their stay in the chamber was supplied by this new system, the pellets being replenished from outside as needed.

Contrast that figure to an estimated more than 250 pounds of liquid oxygen which would have been needed for the same period of time.

Compensate for the expected high rate of loss through evaporation. Add the extra weight of carrying the liquid containers—and you get an idea why ACEL's scientists are so jubilant.

They're far from satisfied, however—and won't be until they've reduced the required oxygen supply poundage and storage space a lot further. In terms of contemplated flights to the moon and beyond, any gear solely devoted to oxygen is still too much. There'll be more and continuing studies, aimed at further miniaturizing the apparatus.

PSYCHOLOGISTS Lowi, Gallagher, Burns and Ziegler are still deep in paper work, and probably won't have all their findings reduced to

charts, graphs and percentages for some time yet. They feel, however, that a lot of valuable information was gained through this test.

They think that, considering the youth of most of the subjects, they came through in fine style.

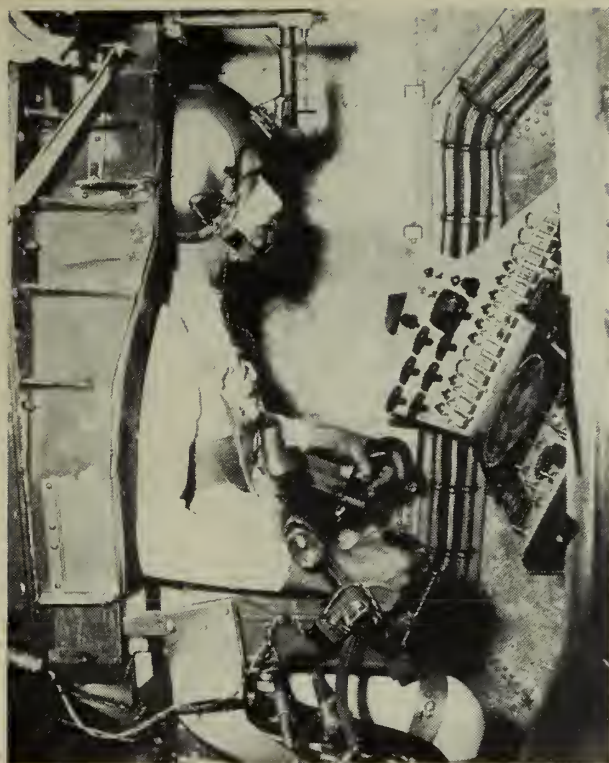
"This was a tough grind," Dr. Lowi says. "They went in boys, and came out men. We're very proud of all of them."

For the youngest of the guinea pigs, getting out of the chamber proved to be an extra-special occasion. The test's eighth day was also Bob Breithaupt's 19th birthday. His mother and brother were waiting outside the hatch when he emerged, welcoming him back from simulated space.

—Jerry McConnell, JO1, USN.



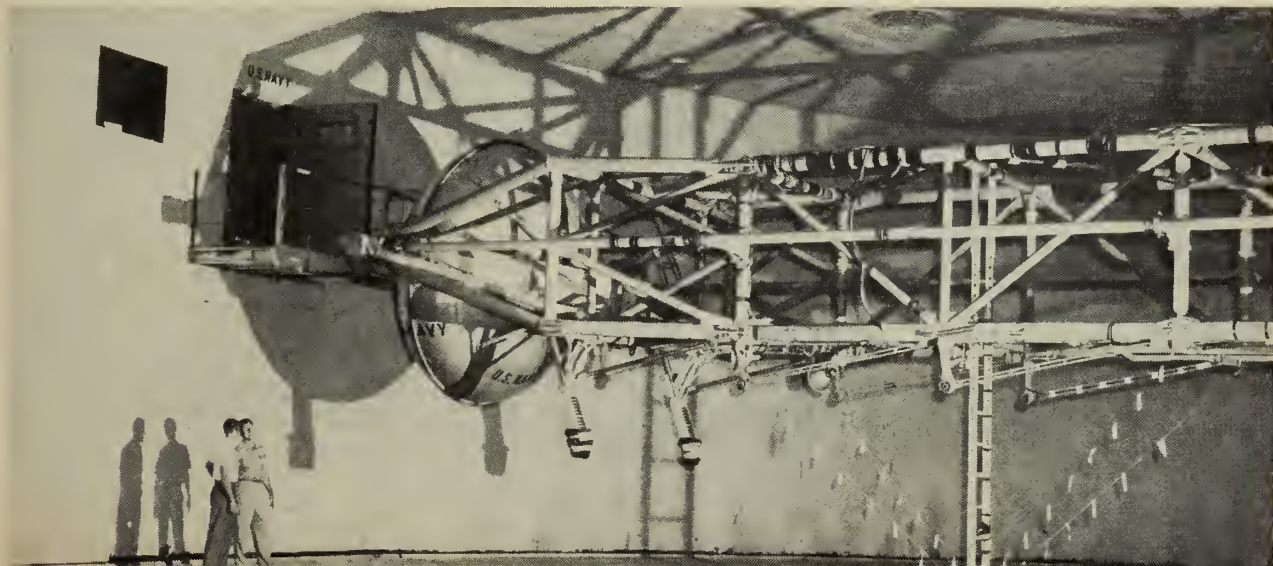
SPACEMEN rotated from job to job and four-hour rest periods as their assigned numbers were flashed on board.



Astronauts at ACEL

ACEL is on the up and up so far as the Project Mercury Astronauts are concerned. In preparation for their flight into space these men have been undergoing training under simulated space flight conditions, and testing gear they will use at Navy's Aircrew Equipment Laboratory, Johnsville, Penna.

Recent tests have included an extensive workout of a full pressure suit designed by ACEL as well as space-simulated capsule flights. Shown here are experiments and tests conducted with the lab's human centrifuge and molded acceleration couch. *Top:* Navy Astronaut, A. B. Shepard, Jr., LCDR, USN, mans controls in centrifuge's gondola. *Top Right:* Centrifuge rider LCDR W. M. Schirra, USN, is readied. *Right:* Molded seat is checked for fit by LCDR Shepard. *Below:* Centrifuge gets set for whirl through simulated "space."



★★★★★ TODAY'S NAVY ★★★★★



NEW BROOM—This unusual vehicle is a runway sweeper acquired by NAS Atsugi, to cut down on possibility of objects' being sucked into jets.

Dewey, Guided Missile Frigate

uss Dewey (DLG 14), first of a new class of guided missile frigates, officially joined the Fleet in December when she was commissioned at the Boston Naval Shipyard.

The 512-foot, 5600-ton prototype of the largest destroyer class ever built is 50 feet longer and almost double the tonnage of the largest World War II destroyers. *Dewey's* armament and equipment include the ASROC antisubmarine rocket and *Terrier* surface-to-air guided missiles, designed to repel air attack. Conventional armament includes 5-inch/45 caliber and 3-inch/50 caliber guns and tubes for antisubmarine torpedoes.

Implementing this armament are the latest in search radar and long-range sonar devices. Once the target is detected, this gear can keep it under surveillance, record its height or depth, and its course and speed.

The new ship will be manned by

a complement of approximately 20 officers and 300 enlisted men, many of them electronics specialists.

The ship is the second to carry the name of Admiral George Dewey.

Air Weapons Meet Winners

Air Units of the Atlantic and Pacific Fleets divided honors in the Fourth Annual Naval Air Weapons Meet.

VAH-4 from NAS Whidbey Island won the heavy attack segment at the Yuma, Ariz., meet.

VF-3 from NAS North Island, flying the F4D *Skyray* won the All-Weather Fighter competition; while VF-41 from NAS Oceana, flying the F3H *Demon*, won the *Sparrow* missile firing competition.

VA-56 from NAS Miramar won the jet light attack event, while VA-85 from NAS Oceana copped the propeller light attack event.

VA-232 from MCAS Kaneohe Bay, Hawaii, won the day fighter event.

News of Ships and Navy Units

Among the goings-on within the Navy, we hear that:

- **Mine Division 93** has returned to its home port of Long Beach after a six-month cruise in WestPac.

- Seven LSTs—*uss Tioga* (LST 1158), *Russell County* (LST 1090), *Jefferson County* (LST 845), *Snohomish County* (LST 1126), *Kemper County* (LST 854), *Outagamie County* (LST 1073) and *Polk County* (LST 1084)—of PhibRon Three have departed San Diego for a normal operational tour in the Western Pacific. They were accompanied by *uss Carronade* (IFS 1), PhibPac's only inshore fire support ship.

- *uss Tilefish* (SS 307) has been decommissioned and placed in a Reserve status after almost 16 years of continuous service.

- The Navy's deep-diving sphere, *Trieste*, is now engaging in a three-month series of explorations off the Marianas Islands.

- Of the original crew of 2500 men of *uss Forrestal* (CVA 59), 49 plank owners were on board to help her celebrate her fourth birthday.

- *uss Kearsarge* (CVA 33) has returned to her normal duties with the Seventh Fleet after giving a strenuous assist to the Nagoya, Japan, victims of a most destructive typhoon.

- *uss Randolph* (CVS 15) and *Hornet* (CVS 12) were this year's winners of the Marjorie Sterrett Award.

- *uss Cavallaro* (APD 128) has been transferred to the Republic of Korea under terms of the U. S. Mutual Assistance Program.

- A new leadership field team has been established in the Pac Flt, West Pac and MidPac.

- A citation—the Constant Vigilance Award—and the first of its kind, was awarded the radar escort picket vessel *uss Thomas J. Gary* (DER 326), home-ported in Newport, R. I., for "superior performance in completion of assignments on schedule and maintenance of outstanding proficiency, a high degree of antisubmarine warfare readiness and performance during barrier

YESTERDAY'S NAVY



On 6 Jan 1813 *uss Hornet* captured the British schooner *Ellen* off the coast of Brazil. On 8 Jan 1850 the Brooklyn Naval Drydock was used for the first time. On 19 Jan 1840 two ships of LT Charles Wilkes' expedition positively and independently identified land in the Antarctic area. On 27 Jan 1778, in the second raid on New Providence Island by American forces during the Revolutionary War, Fort Nassau was captured and 20 American prisoners were released. On 27 Jan 1942 *uss Seawolf* (SS 197) delivered ammunition to Corregidor and evacuated Navy and Army pilots from there.

ASW exercises and alertness and initiative in responses to emergency and unusual situations."

- The **Naval Missile Center, Point Mugu**, Calif., celebrated its 13th birthday with a full dress inspection by its CO.

- **USS Power** (DD 839) is just bursting with pride over its spanking brand new station wagon, purchased during its recent Med tour, with money from the ship's Welfare and Recreation Fund. *Power*-men claim they are the first of DesLant's destroyers to achieve this status.

- While on the recent Far East deployment of **USS Raton** (SSR 270), all non-qualified men (32 of them) who left San Diego at the beginning of the trip returned wearing dolphins pinned on their chests.

BuWeps Takes Over

The Bureau of Ordnance and Aeronautics have now been consolidated into the Bureau of Naval Weapons.

First chief of the new bureau that has assumed all the functions and obligations of the two older ones is RADM Paul D. Stroop, usn, a naval aviator who was formerly Chief of the Bureau of Ordnance. RADM William A. Schoech, usn also a naval aviator, is Deputy Chief.

Naval and civilian personnel of the disestablished bureaus have been transferred to the Bureau of Naval Weapons. So have the custody, jurisdiction, records, accounts and properties of BuOrd and BuAer. Funds allocated to those bureaus and the administration of contracts previously let by them have also been taken over by the new organization.

The Bureau of Ordnance, established 31 Aug 1842, as the Bureau of Ordnance and Hydrography, was one of the five original offices which made up the Navy's bureau system when it was created by Congress. CAPT William Montgomery Crane was its first chief. Its first major task was the arming of the then 69-ship Navy with muzzle-loading cannon, later replaced by Dahlgren guns and finally by modern, breech-loading naval rifles.

Some of the significant advances in naval ordnance introduced by that bureau include: the electrically controlled torpedo—used successfully in submarines of the *Holland* class in 1910; depth charges—first introduced before World War I; new



UP AND AWAY—A Tartar surface-to-air guided missile streaks toward its target upon being launched from the deck of *USS Norton Sound* (AVM 1).

methods of fire control; the 5-inch/38 double-purpose gun and the 6-inch/47 cruiser mount—both used extensively during World War II; the proximity fuse; and the Norden automatic bombsight, adopted by the Army Air Corps for use in World War II.

In 1943 BuOrd introduced one of the first guided missiles to be employed in wartime against an enemy. Two years later the *Bumblebee* program provided an experimental demonstration of ramjet acceleration in supersonic flight. The first air-to-air rocket developed in this country—the 2.75-inch folding fin aircraft rocket was introduced by BuOrd in 1950.

In 1954 BuOrd's *Terrier* surface-to-air guided missile was successfully fired from *uss Mississippi* (AG 128), and in 1957 it was launched from the Navy's first guided missile destroyer, *uss Gyatt* (DDG 1). One year later the *Sidewinder* air-to-air guided missile was first used in combat by Republic of China pilots over the Formosa Strait.

BuOrd was also one of the agencies which helped develop the atomic bomb.

The Bureau of Aeronautics was established as the Office of Naval Aeronautics—a part of the Office of the Secretary of the Navy—in 1914. It became a separate bureau by Act of Congress in 1921. Its first chief was RADM William A. Moffett, usn.

The year 1925, when *uss Saratoga*

(CV 3) and *Lexington* (CV 2) were launched marked the beginning of a period during which BuAer played a leading role in the development of naval aircraft, missiles and assorted aeronautical equipment.

In 1946 the *FH-1 Phantom* became the first all-jet aircraft to make successful landings and take-offs from a U. S. carrier. This was followed by such innovations as the launching of a guided missile from a submarine in 1947, a record altitude flight by the rocket research plane *Skyrocket* (D-558-2) in 1949 and the first operational use of a new steam catapult for launching jet aircraft from carriers.

Among the missiles developed by BuAer have been *Regulus I*, *Sparrow I*—credited with being the nation's first air-to-air guided missile, *Sparrow III*, *BullPup* and the *Corvus* and *Eagle* missile systems which are now in advanced stages of development.

With the establishment of BuWeps, there are now six bureaus. Besides this newest one they are the bureau of: Supplies and Accounts; Yards and Docks; Medicine and Surgery; Ships; and the Bureau of Naval Personnel, or—BuSandA, BuDocks, BuMed, BuShips and BuPers as they are abbreviated.

The creation of BuWeps is designed to cut down the time it takes to develop, and make operational to the combat forces, new and improved missiles, aircraft, weapons systems and ordnance components.

SUBRON



POLARIS PLANK OWNERS—A. Kushlan, YN2(SS), and N. Slater, YNT3(SS), members of first FBM submarine squadron, assemble model of Polaris sub.

Briefs on Polaris

- The U. S. Navy's *Polaris* Fleet ballistic missile will be a solid-propelled, inertially guided missile, capable of being launched from submerged or surfaced submarines as well as surface ships. It will have an initial operational range in excess of 1200 nautical miles and will have the capability to carry a nuclear warhead. *Polaris* is now in advanced stages of development. A flight test program involving two-stage solid-fuel test vehicles similar in external appearance to the final missile is underway at the Atlantic Missile Range, located at Cape Canaveral, Florida.

- The *Polaris* missile is scheduled to be ready in 1960 for service aboard nuclear-powered submarines.

- The first of these, *uss George Washington*, SSB(N) 598, was commissioned on 30 Dec 1959. Launch dates for *Patrick Henry*, SSB(N) 599, and *Theodore Roosevelt*, SSB(N) 600, and *Robert E. Lee*, SSB(N) 601, were 22 September, 3 October and 18 December respectively. (For additional information on Navy plans for FBM roles see page 6.)

- The combination of the missile, the submarine, and the supporting launching and handling, fire control and ship's navigation equipment plus the personnel to operate them, will

constitute the Fleet Ballistic Missile Weapon System. All aspects of the program are proceeding in parallel and interlocking channels designed to have each component ready at the target date.

- Plans for *Polaris* (named after the North Star) were first announced in January 1957. Because of the space, weight and handling limitations of its shipboard mission *Polaris* was designed to be smaller and lighter than other IRBMs. In January 1958 the Navy announced an accelerated development schedule with the 1960 target date for operational use. On the heels of this announcement came reports of successful firing of a test vehicle in the *Polaris* program on 17 Jan 1958. In ensuing months several other successful vehicle firings were reported. These test vehicles were of various shapes and sizes, designed to test in flight major systems and components designed for the *Polaris* itself.

- In September 1958, a more advanced series of test-firings began employing development test missiles close to final *Polaris* configuration. These tests are aimed at gathering vast amounts of information, via telemetry, on in-flight performance of systems and components under development for the *Polaris* missile. On 8 May 1959, a two-stage *Polaris* test vehicle accomplished all test objectives. The flight test program is con-

ducted at the Atlantic Missile Range at Cape Canaveral, Fla.

- Next to the standing launch pad at Cape Canaveral a ship's motion simulator has been installed, from which a test vehicle was successfully launched on 14 Aug 1959, under conditions approximating those encountered from a ship at sea. Following the simulated sea-going launch, a *Polaris* test vehicle was launched on 27 Aug 1959, from *uss Observation Island* (AG 154), that has been especially converted for this purpose. (See page 49.) This firing also achieved all test objectives.

- The launcher-test programs have been in progress for some time. Operations Skycatch and Peashooter, at San Francisco Naval Shipyard, are dryland operations to pioneer testing of methods of ejecting the missile. Operations Pop-up and Fishhook at San Clemente are tests from a submerged launcher.

- Like the other ballistic missiles, *Polaris* will be basically a projectile traveling a ballistic path through space, lifted to altitude and set on course by its original propulsion and guidance components, and then governed by natural forces such as gravity on its way to the target. The missiles are primarily designed for submarine use but they can be fired from surface ships just as effectively.

- A converted cargo ship—now *Compass Island* (AG 153)—was commissioned in November 1956 to develop the navigational equipment needed for accurate shipboard use of the FBM system. The result is the Navy's Ship Inertial Navigation System (SINS), which can position the firing ship with such accuracy that its missiles can strike target areas at very long ranges. SINS determines true north, true vertical ship position and speed to supply the data necessary for pinpoint firing.

- Deployed in submarines cruising the world's oceans, *Polaris* is planned to be a deterrent weapon, inhibiting any potential aggressor from striking the first blow by threat of retaliation from such hidden, mobile launching platforms.

- The nuclear-powered FBM submarines will be named for distinguished Americans. They include: *uss George Washington*, *Patrick Henry*, *Theodore Roosevelt*, *Robert E. Lee*, *Abraham Lincoln*, *Ethan Allen*, *Sam Houston*, *Thomas A. Edison* and *John Marshall*.

Pt. Mugu: Missile Center

The Navy Missile Center, Point Mugu, Calif, a modest entrant into the space age with the testing of German V-1 buzz bombs in 1946, has grown up to become the *Pacific Missile Range*—and the sky isn't necessarily the limit any more.

Pacific Missile Range is one point in a tri-pronged complex of national missile ranges. The others are the Atlantic Missile Range near Cape Canaveral, Fla., and the White Sands Missile Range in New Mexico.

The three ranges, under the direction of the Secretary of Defense, are research centers for the assembly, check-out, testing and evaluation of missiles, satellites and space vehicles; the training of personnel who may ultimately use these weapons, and the actual operational use of the vehicles.

Together they form a thoroughly integrated, coordinated program in which each service, each range and each military department complements the others in providing facilities not only for the services, but for civilian research and development agencies as well.

Now in its second year as a national missile range, PMR is basically a sea test strip 500 miles long paralleling the California coast and extending 250 miles seaward.

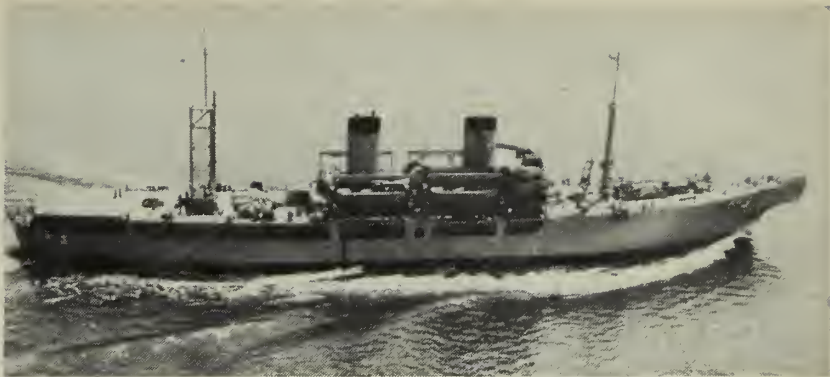
Rear Admiral Jack P. Monroe, USN, PMR's commanding officer, has his headquarters at Point Mugu, one of the range's two major land areas.

Instruments, communications equipment and launching pads are installed at the Naval Missile Test Facility, Point Arguello, a 19,000-acre tract which was formerly the southern portion of Camp Cooke Army Base.

Point Arguello is, among other things, the only spot in the continental United States from which a polar-orbit satellite can be safely launched.

The northern portion of the former Camp Cooke, renamed Vandenberg Air Force Base, is headquarters for the Strategic Air Command's First Ballistic Missile Division. Although not a part of PMR, Vandenberg uses the facilities of the Navy-managed range in launching Air Force satellites and space probes, and in training Air Force missile crews.

In return, the Air Force Base provides housing, messing and other administrative support to PMR.



WHAT'S MY LINE?—USS *Aeolus* (ARC 3) is one of Navy's seven ships that are kept busy repairing and laying cables strung on floors of the seas.

Extensions of the basic range are test corridors reaching thousands of miles out to sea. Over this expanse our intercontinental ballistic missiles and intermediate range ballistic missiles are put through their paces. Range ships at sea are used for tracking and collecting data from launchings. Additionally, land-based tracing stations are located on off-shore islands, and at Midway, Wake and Eniwetok.

Several factors make PMR an ideal site for launching and testing missiles and satellites.

ICBMs and IRBMs are launched without the danger of first and second stages falling on densely populated areas.

Satellites may be launched in a southerly direction, permitting a polar orbit. Because of the rotation

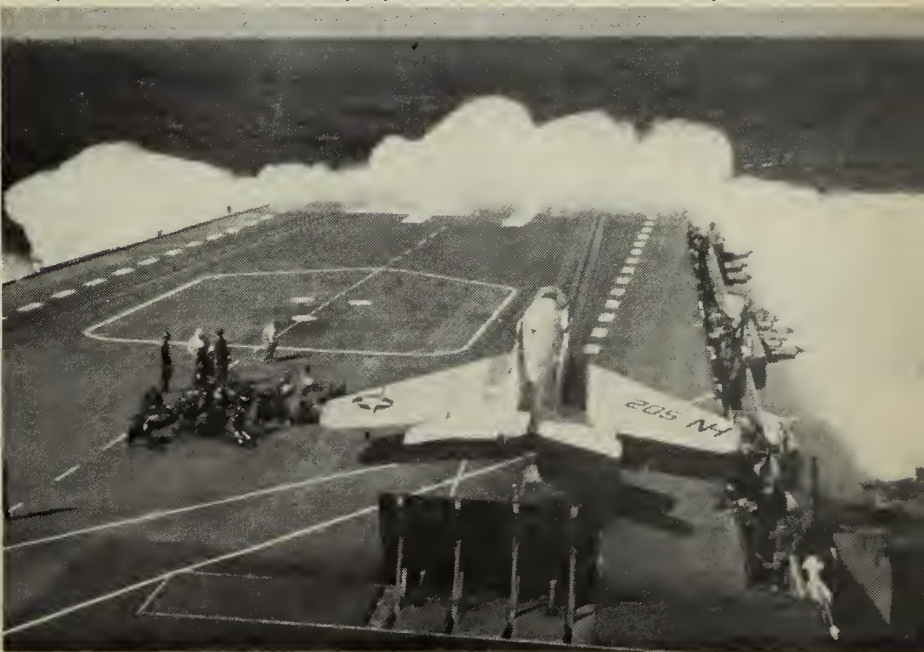
of the earth on its axis, this increases the amount of data received from outer space.

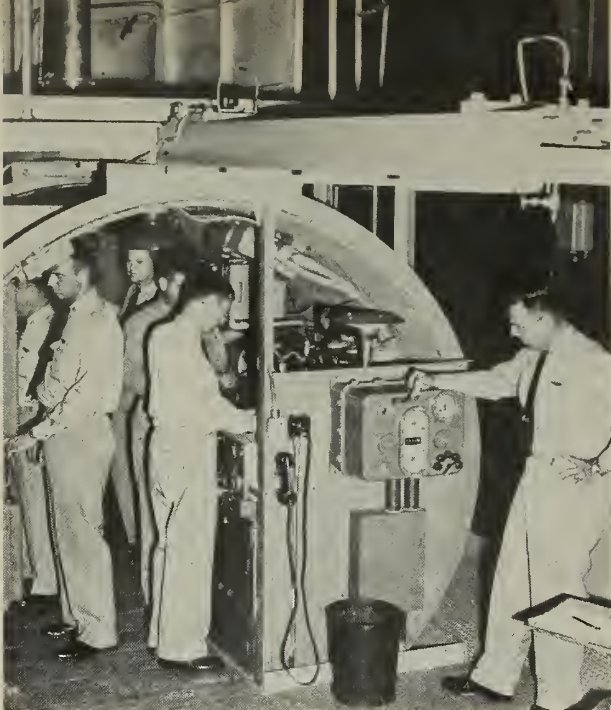
Another consideration is the nearness of some of the nation's largest aircraft and missile plants, providing a considerable saving in costs, transportation and time.

Also, the remote location of the area makes possible far greater secrecy and security than at other testing sites where the population is more concentrated.

Progress, in the less than a decade and a half since the first crude tests in 1946, has been spectacular by any standards. Those modified German buzz bombs were fired over a 200-yard track. PMR, by the time full operational capacity is reached in the early 1960s, will extend some 5000 miles to Wake Island.

SALTY START—Cat crew prepares to blast an F3H *Demon* into the sky as heavy sea sends a blanket of spray over the bow of USS *Midway* (CVA 41).

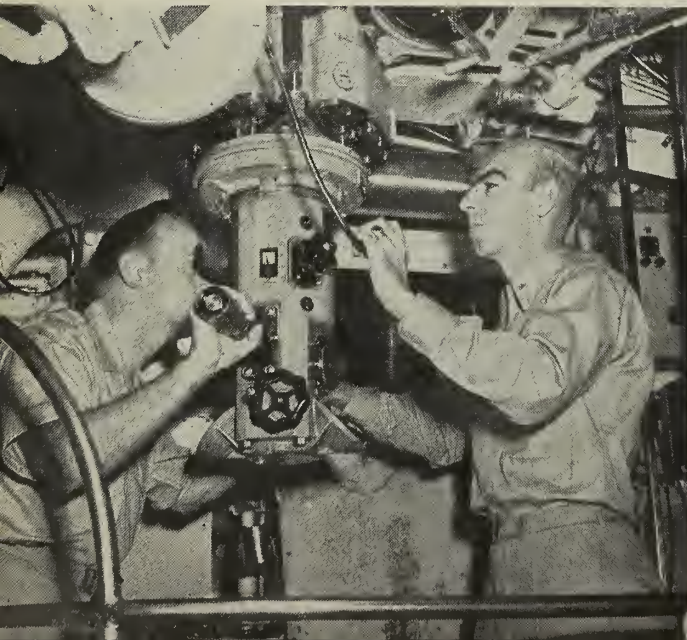




LIKE REAL — Attack teacher trains future commanding officers. Below: Students discuss sub problem at Pearl.



AT SEA—Practice attack is made on shipping and submarines during sea phase training for prospective sub COs.



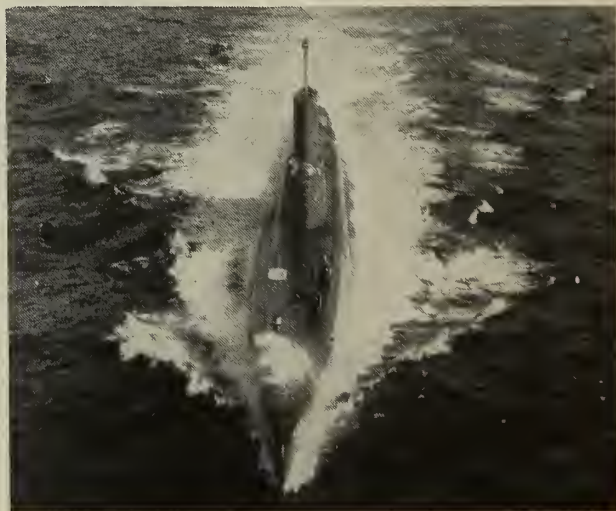
SUB COs-to-be man stations in USS Swordfish, SS(N) 579.

School for Skippers

ONE OF THE MOST intricate and complex ships in today's Navy is the submarine. This, plus the lives and money involved, puts quite a load of responsibility on the shoulders of future sub skippers, especially in the nuclear Navy.

To help them prepare to take over the command of a sub the Navy has a school for prospective submarine commanding officers located at Mare Island, New London and Pearl Harbor. In the Pacific, the first week of the five-week course is spent at Mare Island, where students learn tactical procedures and demonstrate them on the attack teacher. On this training device new skippers can review basic search, approach and attack procedures as well as fire control techniques. The balance of the course is conducted at Pearl where, except for a study of submarine force policy, the training is done at sea in subs.

Under the surface of the Pacific, students stalk and "sink" shipping guarded by antisubmarine ships and gear. In addition, future COs of the silent service practice searching out and hunting down submarines in mock-sub-against-sub warfare.



ALL HANDS

How To Earn Those Dolphins

A TWO-CREW SETUP for Fleet Ballistic Missile submarines obviously will increase the Navy's need for submariners.

So, if you hold one of 23 ratings in a variety of pay grades and if you are not now a submariner and would like to become one, get your application for Basic Submarine School in now—your chances were never better.

Here are the ratings from which applications for submarine training are desired:

- EM, EN, MM, ET, IC, SO and TM in pay grades E-4, E-5, E-6 and E-7, and designated strikers.

- QM, RM, GS, YN, CS, SM, SD and FT in pay grades E-4, E-5 and E-6.

- HM, in pay grades E-5, E-6 and E-7.

- SK in pay grades E-5 and E-6.

- SN, SA, FN, FA, TN and TA.

Navymen now afloat on Seavey who have not received orders may request either direct orders to Basic Sub School, or orders to Basic Sub School via the Class "B" school of their choice, if they meet eligibility requirements.

Previously, if you were serving on a tour of shore duty, you had to complete that tour before you could be ordered to Basic Sub School. Now you must complete only a year of such a tour to become eligible. Don't wait until you have put in that year on shore duty to submit your application, however. Get your request in as early as possible to permit arranging for and ordering your relief, and to insure availability of quotas at Class B schools if requested.

Eligibility requirements for assignment to Basic Submarine Training are:

- Have 24 months' obligated service commencing with the convening date of the class to which ordered.

- Be a volunteer for sea duty in submarines.

- Have a minimum combined ARI and MAT or ARI and MECH score of 100, or a minimum combined GCT and ARI score of 100. Requests for waivers will be considered on individual merits. Such requests must be substantiated.

- Be physically qualified for submarine duty according to the *BuMed*

Manual (see Article 15-29).

- Have demonstrated evidence of emotional and mental stability and maturity. The absence of these is often reflected by a poor service record.

- Age limits are purposely not established, since age often does not accurately measure a man's stamina and flexibility. When a man over 30 years of age requests submarine training, his CO must comment on his stamina and flexibility.

Once you complete the eight-week Basic Submarine Course at New London, Conn., one of several things could happen.

You might go directly to nuclear-power school. One fourth of each Submarine Nuclear Power Class is made up of direct input from Basic Submarine School.

The requirements, as outlined in Chapter 11, *Enlisted Transfer Manual*, in brief are:

- Be a USN HM in pay grades E-6 and E-7, or an MM, EN, ET, EM, IC in pay grade E-3 through E-7.

- Be designated "Qualified in Submarines" except in the case of the direct input we mentioned above.

- Be a volunteer for the program.

- Have a minimum combined test score in ARI/MECH of 105.

- Have a minimum of 40 months' obligated service at time of reporting for course of instruction.

While MM, EN, IC, ET and EM are all source ratings, and all have an opportunity for going direct to Nuclear Power Training from Basic Submarine School, your chances are especially good if you are an EN or MM.

You might, in a few cases, be ordered for precommissioning and duty aboard an SSB(N). At a later date, and again depending on your rating, qualifications, motivation, etc., you could apply for one or more of the specialized courses of instruction under the *Polaris* program.

Most Basic Sub School graduates, however, are ordered to duty either in conventional submarines, or to a non-nuclear billet in a nuclear submarine. If you are one of these, you should become a qualified submariner about six months after reporting aboard. Once qualified, you can (again depending on your rating)

submit your request for the nuclear power or FBM programs.

The majority of men now being ordered to FBM submarines are already members of the submarine service. If you are now a submariner, serving in either a conventional or nuclear-powered submarine, you should submit your request for FBM submarine duty to either the COMSUBLANTREP at EPDOLANT, or the COMSUBPACREP at EPDOPAC.

If you are eligible for duty in an FBM submarine, your name will be placed on a waiting list at one of those two locations. You would then be ordered to a new construction submarine approximately ten months in advance of its tentative commissioning date.

Source ratings for FBM submarines are: TM, QM, GM, FT, GS, ET, SO, RM, MM, EN, YN, SK, CS, SD, FN and SN. Although there will not be billets in all pay grades, men in all pay grades are encouraged to apply in the event substitutions are necessary.

Before reporting to their assigned ship, QM, ET, FT, TM, GM, GS, RM and SO ratings are normally ordered to attend courses of instruction ranging from three weeks to six months. Periods under instruction and while awaiting commissioning are considered sea duty if ordered from sea duty.

Men ordered to SS(N) or SSB(N) new construction will not be transferred prior to one year on board after commissioning.

To be eligible for duty aboard an FBM submarine, you must:

- Be eligible for SECRET security clearance.

- Have obligated service of 24 months from commencement of course of instruction, or date of reporting to the Supervisor of Shipbuilding in the case of men not receiving instruction.

- Be one of the source ratings.

- Be, in almost all cases, designated SS.

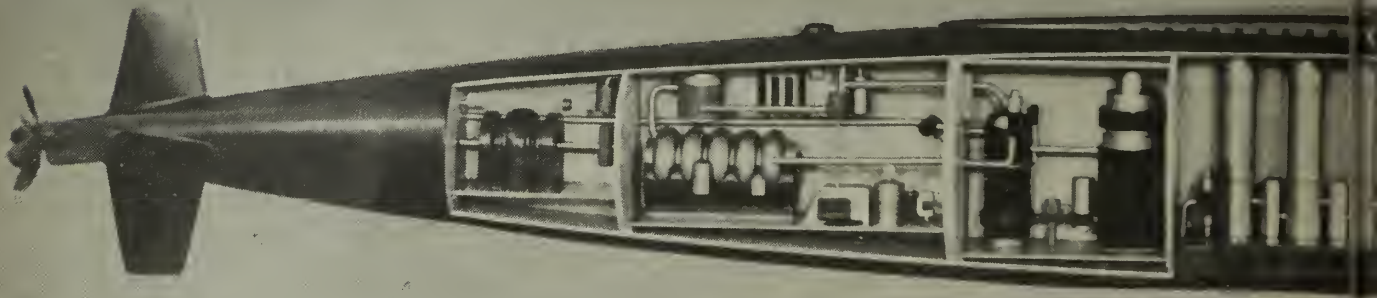
- Not be on current Seavey. (Men extended off Seavey by COMSUBLANT or COMSUBPAC are eligible for such duty.)

That covers the procedures.

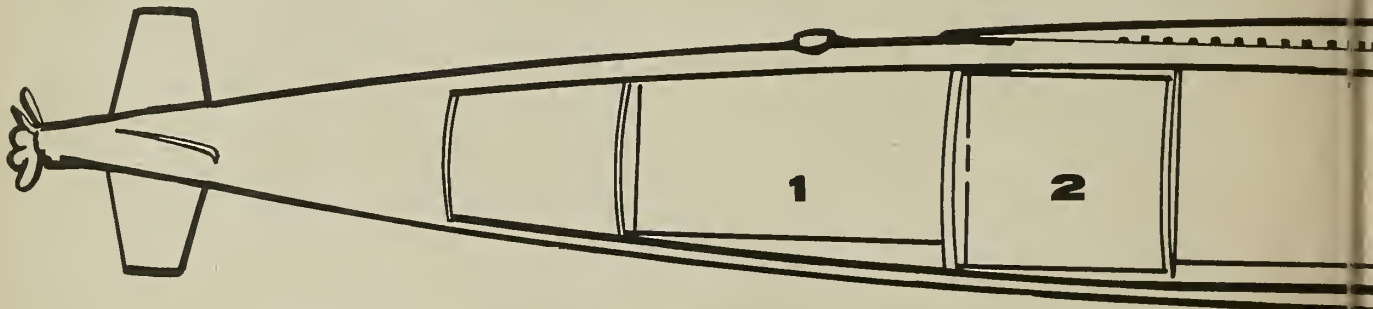
You may volunteer for a particular FBM submarine, and every effort will be made to assign you to that submarine. Now it's up to you.

FLEET BALLISTIC MISSILE S

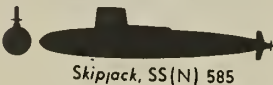
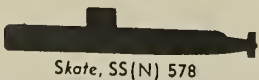
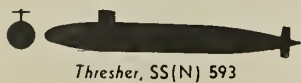
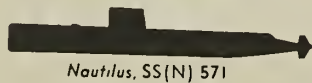
USS George Washington SSB



- | | | |
|------------------------------|---------------------------------|---------------------------------|
| 1 ENGINE ROOM | 4 SHIP'S CONTROL CENTER | 7 SHIP'S CONTROL CENTER |
| 2 REACTOR COMPARTMENT | 5 MISSILE CONTROL CENTER | 8 MISSILE CONTROL CENTER |
| 3 MISSILE COMPARTMENT | 6 GYRO ROOM | 9 NEGATIVE TANK |

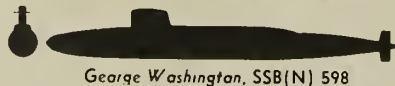
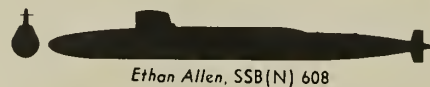


SS(N)—NUCLEAR

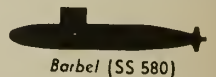
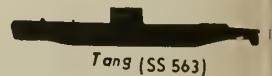


SILHOUETTES OF U.S.

SSB(N)—FLEET BALLISTIC MISSILE



SS—SUBMARINE



SUBMARINE (NUCLEAR)

(N) 598



AUXILIARY TANK NO. 2

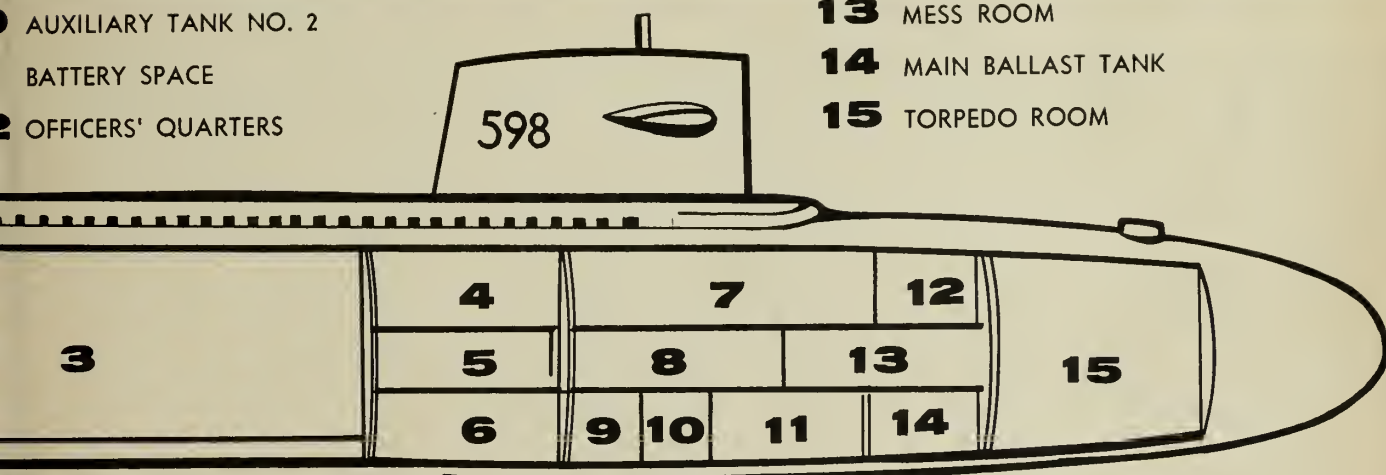
BATTERY SPACE

OFFICERS' QUARTERS

13 MESS ROOM

14 MAIN BALLAST TANK

15 TORPEDO ROOM



U.S. NAVY SUBMARINES

AGSS—AUXILIARY



Albacore (AGSS 569)

SST—TARGET AND TRAINING

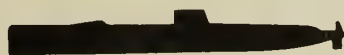


Barracuda (SST 3)



Mackerel (SST 1)

SSG—GUIDED MISSILE



Halibut, SSG(N) 587



Grayback (SSG 574)

SSR—RADAR PICKET



Triton, SSR(N) 586



Sailfish (SSR 572)



Pompano (SSR 267)

Prepared by ALL HANDS Magazine

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **SUBMARINE TRAINING**—Applications for submarine training are now being accepted from Naval Academy and Regular NROTC midshipmen.

This is the first time since World War II that applications have been accepted from potential submarine officers who have had no previous commissioned sea duty. The applicants must receive commissions in the unrestricted line. Those selected will go directly to the Submarine School at New London, Conn., without intervening duty in surface ships.

Before this change, officers applying for submarine training had to have enough experience in surface ships to qualify them as officers of the deck. The move is being made to help solve the problem which arises in the surface Fleet when excessive numbers of surface-trained junior officers go into submarine training.

Besides midshipmen, commissioned officers in the grades of ensign and lieutenant (jg) are also invited to apply for submarine training. These officers will continue to make up three-fourths of the annual input.

The course at New London lasts about six months. It leads to duty aboard submarines and ultimate qualification in them. By going into submarines an officer has the opportunity to be assigned to responsible positions early in his career. He also gets a chance at early command assignment.

Naval Academy and Regular NROTC officers who apply for—but

are not ordered to—submarine training, still remain fully eligible to re-apply at a later date. Those midshipmen who cannot be ordered to submarine school because the class is filled will have the change to apply again after one year of commissioned service. However, consideration for subsequent classes will not be automatic. Officers not selected must apply again under the latest BuPers Notices on the subject.

Lists of the officers selected for this training will be issued in BuPers Notices indicating the class to which each successful candidate will be ordered. The classes convene in January, April, July and October. Graduates will be ordered to ports from which submarines normally operate—New London, Norfolk, Charleston, Key West, San Diego or Honolulu.

Additional information on submarine training for officers may be found in BuPers Inst. 1520.6H.

• **MORE RATE CHANGES**—The in-flight aerial phase of the training at the Photographer's Mate Class "A" School has been eliminated. Regular Navy and TAR (Training and Administration Reserve) PHs are now being assigned a PH designator rather than a PHG or PHA.

Those Photographer's mates who are now PHG (Photographer's Mate, Cameramen) or PHA (Photographer's Mate, Aerial Cameramen) will keep their special designation for the present time.

Regular Navy and TAR personnel who plan to compete for advancement to photographer's mate

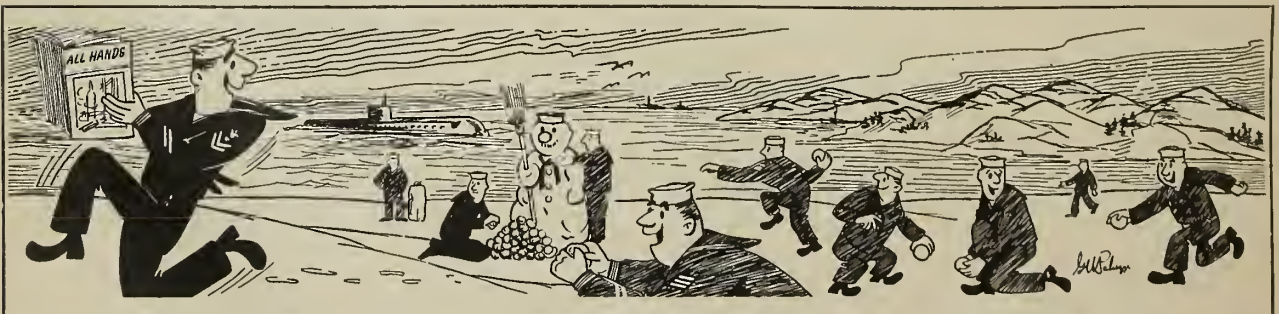
third class in February 1960 will take either the PHA3 or PHG3 examination, but successful candidates will be advanced to PH3. Commencing in August 1960, only the PH3 examination will be given.

• **FROGMEN WANTED** — Naval officers are needed for underwater demolition training. Selected men will attend a 16-week course at the Naval Amphibious School at Little Creek, Va., or Coronado, Calif.

Applicants must be in the grade of ensign, lieutenant (junior grade), or lieutenant, and have an officer designator of 110X or 6XXX (formerly 17XX).

Anyone interested in this training should review his qualifications very carefully before submitting an application. The attrition rate among UDT candidates is high because many students misunderstand the requirements or are just unable to meet the high standards.

Underwater Demolition Teams are assigned the mission in an amphibious operation of conducting pre-assault reconnaissance of enemy beaches and, where necessary, to improve the approaches to the landing beach. This work requires superior qualities of courage, determination, discipline and physical stamina. Members of a UD Team often must swim for long distances carrying explosives, and are required to remain in the water for extended periods. Particularly desired in the program are career officers with 18-24 months' shipboard experience. Career rotation should provide for a two-year tour with an Underwater Demolition Team, followed by rotation to sea duty. The career aspect is important since officers with World War II experience are becoming increasingly scarce. New officers are needed in the program to fill command and supervisory billets.



SNOW GOOD to take off with ALL HANDS—Nine others who are waiting for it will give you a cold reception.

Selected candidates will be trained in a 16-week course which convenes twice yearly on each coast. Officers are ordered to report for physical conditioning two weeks before.

The training received includes hand-to-hand combat, long-distance swimming, calisthenics, small arms firing, cartography and reconnaissance of both demolition and hydrographic nature.

Interested officer-volunteers should forward their applications in duplicate to the Chief of Naval Personnel (Attn: Pers—B124).

• **BIG JOKE**—It's that time again—time to submit your cartoons to the Navy's Fifth All-Navy Comic Cartoon Contest. The rules are the same as for the preceding years and are applicable to active duty naval personnel and their dependents.

Entries must be submitted in time to reach the Chief of Naval Personnel (Attn: Pres G11) for judging by 1 Mar 1960.

Rules governing the contest were published in BuPers Notice 1700 of 23 Nov 1959. They provide that:

- All Naval personnel on active duty and their bona fide dependents are eligible to submit entries.

- Comic (gag or situation) cartoons, to be acceptable, must have a Navy theme or background and must be in good taste.

- Cartoons must be in black ink on 8 by 10½ white paper or illustration board.

- A contestant may enter as many cartoons as desired but each entry must contain the following information and statements *securely* attached to the back of the entry:

1. Full name of originator.
2. Rate/Rank.
3. Serial/File number.
4. Duty station.
5. Hometown and hometown newspaper.
6. Command Recreation Fund administrator.
7. A brief statement certifying the cartoon as original.
8. Commanding officer's indorsement "Forwarded," signed by either the commanding officer or his representative.

Type the following statement and sign—"All claims to the attached entry are waived and I understand the Department of the Navy may use as desired." Signed. . . . (Name of contestant)

Dependents should supply appropriate

data above and should make this statement: "I am dependent of (Name, Rate/Rank, etc.)"

Trophies, furnished by the Chief of Naval Personnel, will be forwarded to the respective commanding officers for presentation to the first five placewinners. The winning cartoons will be published in ALL HANDS Magazine and suitable notations will be made in the "Special Services Newsletter."

• **NOW HEAR THIS**—This Navy's newest sea power presentation, "Your Navy and Your Future," has recently been distributed throughout the Naval Establishment.

The people who handle the sea-power presentation for CNO pass this word:

This year's presentation covers some very important facts. It is a 35-mm color slide presentation of approximately 30 minutes' duration. A showing of "Your Navy and Your Future" may be scheduled for presentation to either military or civilian audiences by contacting your nearest Naval Station, Naval Reserve Training Center or Naval District Headquarters.

In 1848, CNO continues, two events helped to change the world—gold was discovered in California and the Communist Manifesto was published. In 1848, an infinitesimal fraction of one per cent of the world's population was communist. Today, approximately one-third of the world's people live under the communist yoke. This jump is alarming when you consider the relatively short span of years. The communist goal is world domination—and it is being pursued relentlessly and without deviation.

There has recently been talk by the communists of world disarmament. Yet today, the Soviet military forces include 18,000 aircraft, 28 cruisers, 150 destroyers and 450 submarines. The Soviets are fully aware that the unity and survival of the free world depend upon Allied use of the seas.

Today's Navy must be equipped to meet the challenge of the limited war. It must be able to shift quickly to the scene of trouble—wherever it may be. Time is the most important factor in preventing crises from flaming into wars.

For further info, contact the Office of Chief of Naval Operations (Op-09D2), Washington 25, D. C.

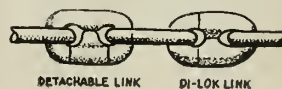
HERE'S YOUR NAVY

Just about everything about the U. S. Navy's first nuclear-powered attack aircraft carrier, *Enterprise*, CVA (N) 65, will be big. Thus, it's not surprising that what will probably be the world's biggest and strongest anchor chain will be a part of her equipment.

An equally impressive statistic, however, concerns the time involved in making the above-mentioned chain. The initial order was placed in April 1959, and it will be some time in the spring of 1961 before work on the chain is finished—more time than was needed to build entire ships just a few years ago.

Enterprise, now building at Newport News and slated to be launched in the summer of 1961, will get a forged die-lock type of chain first designed and developed by the Boston Naval Shipyard for USS *Forrestal* (CVA 59).

Some added statistics might help to show the magnitude of the job. Two 180-fathom lengths (2160 feet) of chain will be made. That figures



out to 926 links, each about 28 inches long, 17 inches wide, and five inches thick. Over-all weight will be 333,360 pounds—more than 166 tons.

Die-lock links are made of two forged pieces, both roughly U-shaped. Two stems of one piece contain a series of paralleled indentations, giving them the appearance of screws. The socket piece has holes at each end of the U. In joining the two pieces to form a link, the pierced socket section is heated, then the stems of the other section are thrust into the holes. The socket section is then pounded with a 25,000-pound drop hammer, forcing its material around the indentations in the stems in die blocks.

The drop hammer presented its own special problems. The impact of a single blow is estimated to equal that from an automobile travelling 60 miles an hour brought to a dead stop in a quarter of an inch. A lot of time and effort went into minimizing the effects of such blows on buildings and equipment as much as possible.

Will the chain be strong enough? Well, tests show it will have a breaking strength of more than 2,500,000 pounds—more than enough, its builders feel, to handle any strain that *Enterprise* will put it to.

LETTERS TO THE EDITOR

Single Screw Subs

SIR: In a recent article about *uss Skipjack*, SS(N) 585, you stated that *Skipjack* and *uss Albacore* (AGSS 569) were the only two single screw submarines.

As long as the Navy's smallest—and finest—submarines, *uss Marlin* (SST 2), and *uss Mackerel* (SST 1), are operating, we must contest that statement.—The Crew, *uss Marlin* (SST 2).

SIR: I just finished an article on the "flying" *uss Skipjack*, SS(N) 585, in the Today's Navy section of ALL HANDS.

You stated that all the other active nuclear-powered submarines, and all conventional subs (except *uss Albacore*, AGSS 569) are driven by twin screws.

I believe you made a booboo by forgetting two of the best boats in the Fleet. Both *uss Mackerel* (SST 1) and *uss Marlin* (SST 2) currently based in Key West, Fla., are driven by a single screw.—G. Holst, EM2(SS), USN.

• *Don't feel hurt. You weren't the only ones neglected. We have since discovered that we also overlooked three others—uss Barbel (SS 580), Blueback (SS 581) and Bonefish (SS 582)—driven by a single propeller. One apiece, that is.*

These three ships, by the way, are the last diesel-electric submarines built. All other submarines under construction or planned are nuclear-powered.—Ed.

Assignment of Senior, Master Chiefs

SIR: Ever since the E-8 and E-9 pay grades were established I have been hearing rumors about their assignment to shore duty. Therefore, I would appreciate your answering these queries for me:

1. Does the Chief of Naval Personnel plan to assign E-8s and E-9s to either recruiting duty or instructor duty with NROTC units?

2. Will E-8s and E-9s be assigned to shore duty through Seavey?

3. If they will be assigned through Seavey, what will the normal tour of sea duty be for SKCSs and SKCMs?—J. M., SKCS, USN.

• *It is very probable that E-8s and E-9s will be assigned to recruiting duty and instructor duty with NROTC units.*

One down and two to go.

Yes, they will be assigned to shore duty through Seavey.

Two down and one to go.

The normal tour for E-8s and E-9s will be the same as that for E-7s in the same rating, so an SKCS or an SKCM would normally get the same length of tour as an SKG.

Three down and none to go. How-

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

ever, to show you how big-hearted we are, we'll throw in this extra bit of information.

Pending a solution to the problem of including billets for E-8s and E-9s in personnel allowances, district and Fleet distributors have been directed (by BuPers Notice 1306 of 4 May 1959) to make sure personnel in these pay grades are assigned to billets commensurate with their indicated capabilities.—Ed.

Meals in MSTs Ships

SIR: I was stationed in the Canal Zone and after 29 months I was granted 30 days' leave to take my wife and child home to remain in the United States.

For my trip to the U. S. aboard USNS *Goethals*, I paid a mess bill for my wife and son of \$18.38 and for myself of \$21.25.

Disbursing stopped my commuted rations the day I left Naval Station, Rodman, C. Z., yet the personnel office told me that I was still in a duty status until my leave started in the United States.

Why was I charged for my food

when I was still in a duty status? And since I was still on duty, why can't I be reimbursed for my mess bill?—J. H. M., BA11, USN.

• *You were not charged for your food while you were on board that MSTs ship. As an enlisted man in a duty status, your food and quarters were furnished. That \$21.25 you paid was a transportation charge incidental to the furnishing of these services. The charge is authorized under MSTs tariff rates.*

Accordingly, there is no authority under which you may be reimbursed for this charge, nor any authority whereby per diem may be authorized under these circumstances.—Ed.

Keeping Up and Getting Ahead

SIR: In 1953 I completed the Navy training courses for AD1 and ADC, plus the General Training Course for PO1 and CPO. Neither course at that time had a NavPers number.

Since then I have completed the new course, *Military Requirements Petty Officers 1 & C*, which superseded the old GTC.

I have been taking the test for AD1 since 1954, and every time I'm recommended, I find it almost impossible to convince the Education Officer that the courses I have completed are the same ones which now have a NavPers number.

Is there any way that I can get those courses entered in my record by NavPers number so I don't have all this trouble every time?—J. R. W., AD2, USN.

• *Normally the completion of a training course will satisfy the training course requirement for advancement. If an earlier course is superseded and will no longer satisfy this requirement, the Chief of Naval Personnel will issue a notice to this effect in each particular instance.*

In your rate, you are currently required to complete two courses, "Aircraft Engines" (NavPers 10334-A), and "Aircraft Propellers" (NavPers 10336-A) before you can compete for AD1.

These will soon be replaced and superseded, however, by an AD1 and ADC handbook (NavPers 10340). Although the book was published in July 1959, the enlisted correspondence course has not yet been published. It should be available early in 1960.

At that time, a notice will be issued which will require you to complete the new ECC before competing for advancement.

It seems to us, however, that getting credit in your record for a course taken

You Can Take That Exam

SIR: On 16 Jun 1957, I was appointed RMCA. Since most terminal eligibility dates are set at 16 May, it looks as though I will be missing out on the E-8 examination by one month.

This disturbs me because I was originally scheduled to make chief on 16 May 1957, but since the Navy was short on funds, the promotion was put off one month.

For advancement purposes, will the original 16 May date be used?—H. C. M., RMCA, USN.

• *You don't have to worry about missing an examination because of that one month. The E-8/E-9 examination date has been rescheduled. It is now given annually in August.*

You are eligible, insofar as time in rate is concerned, to take the E-8 examination in August 1961.—Ed.

many years ago isn't really to your advantage. Since AD1 is rather difficult to make, it would seem a good idea to re-take the course. In that way, you erase the doubt in the mind of the Education Officer; the courses will be properly recorded in your record by NavPers number; and you will benefit from the extra knowledge, and maybe a new crew.—ED.

Postal Clerk Nominations

SIR: Article B-1206 (2) of the BuPers Manual states that:

"No nomination received by the Chief of Naval Personnel will be disapproved upon receipt. When it is discovered by the Chief of Naval Personnel that a person nominated as Navy Postal Clerk or Assistant Navy Postal Clerk is not qualified in accordance with Article B-1203, such nomination will be approved and forwarded to the accountable postmaster, and a directive will be forwarded to the nominating activity, requiring the immediate removal of such person from postal duties. Upon receipt of this directive, the Commanding Officer will comply with Article B-1207."

Does this mean that after a man's nomination has been approved by the Chief of Naval Personnel, the man must be removed immediately from postal duties, and a request for revocation of his designation be forwarded to the Chief of Naval Personnel? Why is the nomination of a "not qualified" nominee approved in the first place?—R. S. S., CAPT USN.

• Yes—confusing as it may seem at first glance—the article does mean just that.

As usual, there is method behind the Navy's apparent madness.

Under Article B-1205 (2) of the Manual, naval postal clerks assume responsibility for the functions of their post offices, including all the necessary finan-



MISSILE MASTERS—Sister ships USS Growler (SSG 577), left, USS Grayback (SSG 574), built to fire Regulus II missile, are home-ported at Pearl.

cial transactions, on the date they are actually designated. In practically all cases this is the day the Designation of Naval Postal Clerk (DD Form 523) is prepared.

By the time the Chief of Naval Personnel (Pers F321) receives the nomination, the man is already handling the duties of a postal clerk. For legal reasons, the period during which he actually performs these duties must be covered by a properly executed designation and revocation.

Therefore, even though review of the Form 523 shows the man is unqualified, the Chief of Naval Personnel approves the nomination and forwards the form to the appropriate accountable postmaster. By separate correspondence, the responsible commanding officer is told why the man is not qualified and revocation of designation is requested.

This way, there is an official designation and revocation on file to cover the nominee's time spent in the job.—ED.

Fights Firpo, Feels Fine

SIR: I too served in USS Shawmut and I can verify everything Chief Paul Forster says in the June issue for I served as his first mech when he was flying in the old F5Ls.

Forster was my chief and plane captain, and I was an MM2c(A) at the time. At that time, in the twenties, I was attached to the NC-9; the NC-10 had LT (later Admiral) Felix Stump as pilot.

Tom Maxted (known as Sailor Maxted) who was a second class boatswain's mate, was a mild congenial fellow as a shipmate. I was aboard the old New York in Balboa, Panama, when he won the Navy heavyweight title from Bob Grant, CGM.

Maxted did fight Firpo in Jersey City, and I think he fought a draw. I know it was shortly before Firpo knocked Jack Dempsey out of the ring, so he (Maxted) must have been a pretty good fighter.

As for Chief Forster, he was a wonderful fellow to work for and an excellent mechanic. It used to be said among the plane crews: "If it isn't in supply, see Chief Forster. He carries enough spare parts in his plane to make another engine."

That was the period in which we used to swipe cans of ether from the sick bay to start our motors on a cold morning, as we had priming cups on those old Liberty planes.—Steve V. Boggs, ADC, USN.

• Thanks for your added notes on the old days in Shawmut. Now, does any one have anything to add on the Firpo-Maxted match?—ED.



EXCLUSIVE LADY—Navy's only aviation supply ship, USS Jupiter (AVS 8), carries out mission of testing, supplying the Pacific Fleet by helicopter.



BACK IN 1901—Gunboat USS *Nashville*, cruiser USS *Albany* (rt) sailed from Philadelphia to join European Squadron.

An Oldtimer Recalls Ships of the European Squadron

SIR: The letters from old-timers, which you have published in recent months—particularly the one about our “one-ship fleet” in the Mediterranean in the January issue—bring to mind the days when we established a European Squadron after the Spanish-American War.

The order went out some time early in 1901 (I believe in May). The first three ships assigned to this duty were the cruiser USS *Albany*, the gunboat *Nashville* and the old cruiser *Chicago*. At the time, *Albany* and *Nashville* were both at Cavite, Philippine Islands, but whence *Chicago* came, I don’t remember.

Albany and *Nashville* left Cavite for the Mediterranean on 3 Jul 1901. They made stops at Hong Kong; Singapore; Colombo, Ceylon; and Port Victoria on the Island of Mahe, in the Seychelles (Indian Ocean).

After leaving Port Victoria, CAPT Joseph Edgar Craig had a signal hoisted authorizing *Nashville* to proceed to Aden, Arabia, on her own. (*Albany*’s top speed was 21 knots. *Nashville* was a very slow ship.)

Albany was soon kicking up her heels, for we wanted to get to Aden fast. However, that night a sudden and furious storm arose. About 2300, two men were washed overboard from the poop deck. The two large copper life buoys with self-lighting torches were tossed overboard, and we searched for hours—but neither the men nor the buoys were found. Next morning, a fellow manning the ash whip went overboard, bucket and all. We recovered one of the bodies and later buried him in Aden.

The captain was worried, for it seemed impossible that the tall-stacked, topheavy *Nashville* could survive a storm which we had barely conquered. It was therefore an anxious moment as we rounded the promontory into Aden and looked for the gunboat. Lo

and behold, there she was lying peacefully with coaling screens over her sides. Lighters were alongside and “coaling ship” was in full progress. In changing course, *Nashville* had missed the storm entirely.

Our next port of call was Suez, at the south end of the canal, where we received the sad news that President McKinley had been assassinated. Then, it was through the canal and on to Naples. The European Squadron (as it was officially known) was now established, physically.

Genoa became our coaling base, and Villefranche was considered our home port. Frequent visits were made to such places as Leghorn, Messina, Palermo, Algiers, Marseilles and Athens. Early in 1902, while we were at Naples, the new battleship USS *Illinois* arrived to become flagship of the squadron—RADM Arent Schuyler Crowninshield in command.

Meanwhile, since we’d arrived in the Med, there was plenty of opportunity to hobnob with royalty, who seemed to be everywhere, ashore and afloat, in those days. Once, while we were in Villefranche, Grand Duke Michael of Russia paid us a visit. It was at noon. Tables were set on the berth deck and, since it was Thursday, there was a large iron pot on the deck containing bean soup. The duke, curious, asked what was in the pots.

“Uh,” the captain hesitated, “—uh, that is soup a la mode.”

“Ah,” said the duke, and the procession moved on.

At the end of May we headed for Gibraltar; Lisbon, Portugal; and Southampton, England. For the Fourth of July, we hastily skipped across the Channel to Cherbourg, France, where we fired the salute. After that, we were scheduled for a tour of Scandinavia and Russia, so we headed for Christiania, Norway (which you know as Oslo, the national capital).

Up the Christiania Fjord we steamed—*Illinois* leading and *Albany* (senior captain) bringing up the rear—close column (200 yards). We were proceeding at a good clip. On each side of the fjord the people stood and waved. Practically every home had a flagpole. The Norwegian flag was dipped constantly, and we, of course, replied in kind. Captain Craig walked from side to side, bowing and saluting. It was a parade all the way.

Every good thing must come to an end—but not always as suddenly as this did.

Just as *Illinois* was about to enter the harbor, she hit a hidden rock known locally as “Dyner” (in English: the pillow). The rest of us just barely missed piling up. Since we were steering in close formation, I naturally had my eyes on the other ships. Seeing the sudden stop of *Illinois*, I swung sharp to port and quickly straightened out again, nicely missing *Chicago*. But it was close.

Divers found a large gash in *Illinois*, but after the application of a couple of “collision mats,” and some pumping, she was in no danger. Accompanied by *Chicago*, she proceeded at once to England for drydocking.

After 10 days, we proceeded to Stockholm, Sweden, then to St. Petersburg (now Leningrad), Russia. En route, we expended our allowance of ammunition with our 6-inch 50 cal. Armstrong guns, our 4.7-inchers and others. One salvo, from the 6-inch after gun, took about a foot-and-a-half of muzzle along with it.

In the Russian harbor we were met by the Tsar’s yacht, *Standart*, carrying the Tsar and Tsarina, and the Dowager Queen of Greece. From St. Petersburg, we were off to Copenhagen, Denmark; England; and then back to the Mediterranean.

In November we started west. The European Squadron was to rendezvous



OLD AND NEW—New battleship USS *Illinois* joined Squadron in 1902. Rt: Old cruiser *Chicago* was original member.

with the South Atlantic Squadron at Port-of-Spain, Trinidad. The two squadrons merged and sailed under sealed orders that directed us to assume the role of an enemy of the United States. As such, we were to proceed to Puerto Rico to attack and/or capture ships and ports defended by the combined Atlantic Fleet and the Caribbean Squadron.

Early one morning we entered Mayaguez harbor and mined it after us. The place was "defended" by a small gunboat which fled along the shore. One of our ships asked permission to capture the gunboat, but the admiral signaled, "No, let her go and break the news."

At the moment, the "defending" fleet was in the vicinity of San Juan, on the opposite side of Puerto Rico. Upon completion of "Search Problem," as it was called, the entire Fleet repaired to Culebra (after Christmas of 1902) for maneuvers under command of Admiral of the Navy George Dewey, whose flagship was the yacht *Mayflower*. At 0800 we'd up anchor at Culebra, head toward St. Thomas in the Virgin Islands for maneuvers, then we'd return to Culebra in the balmy evenings.

The reason behind the maneuvers was a touchy diplomatic situation involving Venezuela, against which Germany, England and Italy had declared a formal blockade on 20 Dec 1902. Before long *Albany*, the fastest ship in the Fleet, was dispatched to San Juan to pick up our Minister to Venezuela and take him to Caracas to help settle the dispute. The trip was made at full speed (forced draught). When we got to Caracas, German and English men-o'-war were also present.

Afterward, we returned to Culebra. There, our CO, CDR John A. Rodgers, paid an official call on Admiral Dewey. As we were about to shove off, Admiral Dewey said, "I must pay a visit to your beautiful ship."

We had barely reached *Albany* when a dispatch boat from San Juan, flying the "five of clubs," arrived. It carried

orders for *Albany* to proceed at once to Boston, Mass., to have her damaged after 6-inch gun replaced with the newest type of fast-shooting 5-inch then coming in.

In minutes, coaling gear was brought out, and barges full of "black diamonds" came alongside. Soon, "coaling ship," which lasted until late at night, was in full swing.

In the midst of all this, Admiral Dewey came aboard for his visit. "No apologies needed," he told the captain, "I know."

Next morning, at 0700, *Albany* was underway. As she stood out of the harbor, all the bands in the Fleet were playing and the crew members were cheering.

Off Cape Hatteras we ran into one of those heavy January storms, losing the gig, two cutters and one whaleboat. The ship was coated with ice when we reached Boston.

From Boston we moved to the Brooklyn Navy Yard. Then came the Azores and Gibraltar—and we were back in the Mediterranean—but not for long. Trouble was brewing in the Far East. *Albany*, joined by the cruisers *Raleigh*, *Cincinnati* and *New Orleans* (*Albany's* sister ship), made a dash for China, via the Suez Canal, Colombo, Singapore and Hong Kong. After that came Shanghai, Tsingtao and Chefoo, China; drydock at Nagasaki, Japan; Yokohama; a fast trip to Kobe, Japan, where we picked up our Minister Plenipotentiary to Korea; and a fast trip to Chemulpo (which you know as Inchon), Korea.

Then, it was back to Yokohama, where we joined the Fleet again and prepared hastily for a long voyage. The Fleet consisted of the battleships *Wisconsin*, *Kearsarge*, *Ohio* and *Oregon* under RADM Robley D. "Fighting Bob" Evans, and the cruisers, *Albany*, *New Orleans*, *Raleigh* and *Cincinnati* under RADM Philip Henry Cooper.

The cruisers, plus auxiliaries, proceeded to Honolulu, via Wake and

Midway Islands. Our Fleet arrived at Honolulu on 16 Dec 1903, and the Paymaster immediately ordered two things—coal and provisions, including turkey for our Christmas and New Year's dinners. A few days later, when the local housewives began ordering turkey for the holidays, they found not a gobbler to be had on the entire island of Oahu.

From Hawaii, we steamed for the Philippines, via Guam. *Albany* was soon ordered to Bremerton, Wash., for overhaul and remodeling. Through an error, I was transferred to *uss Rainbow*, but as soon as the mistake was discovered, I was transferred to the gunboat *Annapolis*, which was also homeward bound.

Thus ended a very pleasant and educational voyage.

I'll never forget *Albany*. It was in June 1901, while I was in *uss Culgoa*, that I had learned *Albany* was being assigned to the European Squadron. Sensing that this would be a golden opportunity to see the world, I asked at request mast to be transferred. The captain replied, "You don't want to go to *Albany*, she is a madhouse." (In fact, some months before I came aboard, while the ship was lying in Hong Kong harbor, some scoundrel had painted *Craig's Madhouse* in tar all over her white-painted quarter.)

Coming from him, this took me somewhat aback, but after a moment's thought, I said, "Well, if others can take it, I guess I can."

So, the skipper told me, "All right, pack your bag then."

Albany was "home" to me during all my service in her. As a matter of fact, she was "home" to all of us. I don't know exactly what happened, but the few malcontents on board either left or changed their attitudes. — Oscar J. Kulle, QMC, USN (Ret).

● Thanks for bringing us "up to date" on the old Navy. We rely on Navymen like you to keep us informed on the events that occurred, way back when, just a little before out time.—ED.



DIVER'S CHOICE—When NAS Jacksonville's leading deep sea diver (Johnny Starr, BMC) retired, he asked for sideboys attired as befitted his specialty.

National Ensign at Half Mast

SIR: We have a question about the proper ceremonies during the mourning period which follows the death of a prominent member of the military services.

On board our ship we understood Article 2192 of *Navy Regs* (Death of a Person in the Military Services) to mean that the National Ensign should have been half-masted during the mourning period for Fleet Admiral William D. Leahy, usn. Although *Navy Regs* is not clear about proper ceremonies while underway, we flew our National Ensign at half-mast until a flashing light message directed us to conform to SOPA's movement, or to full-mast the ensign while underway. —C. T. R., YN1, usn.

• *Tables in Articles 2191 and 2192, "Navy Regs," authorize half-masting of the National Ensign by all ships and stations upon the death of certain civil officials and persons in the military service. These articles are adequate authority for displaying the National Ensign at half-mast by a U. S. Navy ship underway.*

On the other hand, following the motions of SOPA is a sound move.—Ed.

Switching Warrant Designators

SIR: In the fiscal 1960 warrant officer appointment list I noticed ratings which were not in their normal path of advancement.

Between the time the examination for warrant officer is taken and the actual appointment to warrant grade (upwards of two years, possibly) may an enlisted man transfer from one WO appointment list to another?

I have been told that this happened during the time when ET and FT conversion schools were in progress. Per-

sonnel selected in normal paths of advancement were transferred to the warrant electronics list upon completion of conversion school.

I have been selected for ship's clerk. My rate is YN(IC)1(SS). I have an IC Electrician NJC, have completed IC Electrician School, Basic Nuclear Power Engineering Course, qualified as an Electrical and Electronic Nuclear Powerplant Operator, and am now working as an IC Electrician in the Nuclear Power program. May I apply for transfer from the ship's clerk list to the warrant electrician list?—R.M.K., YN(IC)1(SS), usn.

• *The Navy is just as interested in having you serve in the specialty for which you are best suited as you are. The big problem involved in shifting you from one WO list to another, how-*

Extending for Shore Duty

SIR: As of September 1960 I will have 72 months of continuous sea duty. My enlistment expires that same month.

Since I am in Segment Two of Seavey, for which the cards will come out in February 1960, I'd like to know if I will still get mine even though I am a short-timer.

If I won't get a card, how can I go about making an agreement to extend my enlistment so that I will get one?—R. F. W., SD3, usn.

• *Everyone receives a card, regardless of how much obligated service he has left. However, people with less than 16 months' obligated service are put into "ineffective" Seavey.*

To see about extending for shore duty, check Para. 3.37 of the "Enlisted Transfer Manual."—Ed.

ever, would be to avoid unfairness, either to you or to others on the list.

When conducting selection of USN enlisted personnel to temporary appointment to warrant grade, the Selection Board is directed to:

(a) Recommend for appointment those persons best qualified to perform in a specific category.

(b) Present their findings in recommended order of precedence for appointment by category.

To keep warrant categories filled to authorized strength at all times, appointments are made from the selection list in the recommended order of precedence.

In your particular case, you were selected for appointment to Warrant Officer, W-1 (7822). You are currently number 12 on the list for appointment in that category. In view of this, it would hardly be fair to others to place you at the top of the warrant electrician list, nor would it be fair to you to place you at the bottom of that list.

When your number is reached for the ship's clerk category, and if you are physically qualified and meet all requirements, you will be appointed Warrant Officer, W-1 (7822). After you have accepted this appointment, you may request change of designator to Warrant Electrician (7542). Rest assured that your request will get every consideration according to its merits.—Ed.

Who's Senior?

SIR: A problem concerning enlisted precedence has come up on our base. Maybe you can settle it.

It concerns two third class petty officers in the same rating. One made his rate during the February 1958 exams. The other one reenlisted for his second hitch after being in the inactive reserve for over a year. During his first enlistment he made second class. When he came back into the Regular Navy in October 1958, however, he was accepted as only a third class. There was no loss of time either between his discharge and entry into the Inactive Reserve, or the Inactive Reserve back into the Regular Navy.

The chief yeoman on the base says that the second man is senior, since he was not actually reduced in rate, but only accepted back into the Navy as a third class. Therefore, his date of rate as a third class dates back to when he first made third class sometime in 1955.

I disagree and say that his date of rate is in October 1958 when he reenlisted, thereby making the second man senior.

Who's right?—J. H. R., DK3, usn.

• *The chief is right.*

According to Article C-2102 of the "BuPers Manual," which sets forth the rules for precedence, it doesn't matter whether the service is active or inactive, just so long as it's continuous.

So, according to the "book," the PO3 who first made his rate in 1955, may count that date as his effective date of advancement for precedence purposes. This is true even though some of the service was in a higher pay grade or as a member of the Inactive Reserve.

When it comes to advancement in rate, however, it's another story. The Manual does make a distinction in Article C-7204 between active and inactive duty. It states that for advancement purposes, the second man who has had more than three months away from active naval service (this article doesn't consider Inactive Reserve time as continuous service), must fulfill the service requirement for advancement starting with the day he returned to active service.

This is probably one of the few cases when a junior man in the same rate had enough time in rate for advancement before the senior one.—Ed.

Heavy Lightweight

SIR: I have been reading with growing interest the various steaming records which have been claimed and then scuttled by an opponent.

Outpost (AGR 10) would like to enter the fight armed with a main battery of steaming hours for fiscal 1959. The caliber is a total of 5207 underway hours for an over-all underway percentage of 59.44.

The globe trotting ships at least have a variety of oceans and ports, while Outpost spent her time in the North Atlantic. Of the inport period, there were 21 days at Boston, Mass., and the remainder in Davisville, R. I.

We never failed to meet our schedule, which speaks well of our engineers who keep the ancient three cylinder "up and downer" chugging along.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

- USS California (BB 44)—A reunion will be held in Denver, Colo., in June. For more details, write to Harold D. Dean, Box 275, Sorento, Ill.

- USS Picking (DD 685)—A reunion is scheduled for 16, 17 and 18 June, in Indianapolis, Ind. Write to Fred L. Bowman, 4201 Harrison Pl., Indianapolis 18, Ind.

- Recruit Company 418, Great Lakes, Ill.—Shipmates who served from 2 Dec 1952 to 22 Feb 1953 and who are interested in holding a reunion in June may write to Martin Qualantone, Jr., 9-09 Twelfth St., Fair Lawn, N. J.

- USS Makin Island (CVE 93)—All former crew members and squadron personnel who are interested in holding a reunion with time and place to be decided may write to Harold A. Knox, 5502-234th St., S. W., Mount Lake Terrace, Wash.

We have a proud ship with a "can do" crew and will tip our hat to any heavyweight who can best us.—LCDR Howard W. Jones, USN.

- Your ship's record of sailing hours is impressive.

How long your claim will stand is hard to say, but there is one thing of which you can be sure; if you were outdone in 1959, you'll hear of it. Meanwhile, keep steaming.—Ed.

Addressing CO and Exec

SIR: The Petty Officer's Guide, although not an official publication, states in part: "In any naval organization there is only one 'Captain,' the regularly assigned Commanding Officer, and only one 'Commander,' the regularly assigned Executive Officer."

I know that it is proper to call the Commanding Officer, regardless of his rank, "Captain," but is it proper to call the Executive Officer, "Commander," regardless of his rank?—J. D. B., AE1, USN.

- There is no basis for addressing an executive officer below the rank of lieutenant commander as "Commander." This is stated in "Naval Orientation" (NavPers 16138-C), page 52:

"In any naval organization, there is only one captain, the regularly assigned commanding officer, who may be addressed as 'Captain,' regardless of his rank. There is also only one commander, the regularly assigned executive officer (if of the rank of commander), who may be addressed as 'Commander,' without appending his name. However, the present tendency is to address the executive officer as 'Commander' even though his rank is that of lieutenant commander."

In other words, if the executive officer is commander or lieutenant commander, he may be referred to as "Commander," without using his name. Other officers of the same rank aboard would be referred to by name, such as Commander Smith or Mr. Smith, as the case may be.

There are many men who seem to believe they should refer to any lieutenant commander as commander. This, too, is unfounded, although it is often mistakenly done as a form of courtesy to the lieutenant commander concerned.—Ed.

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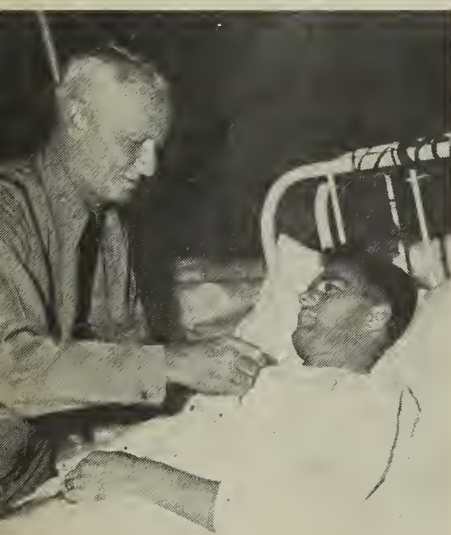
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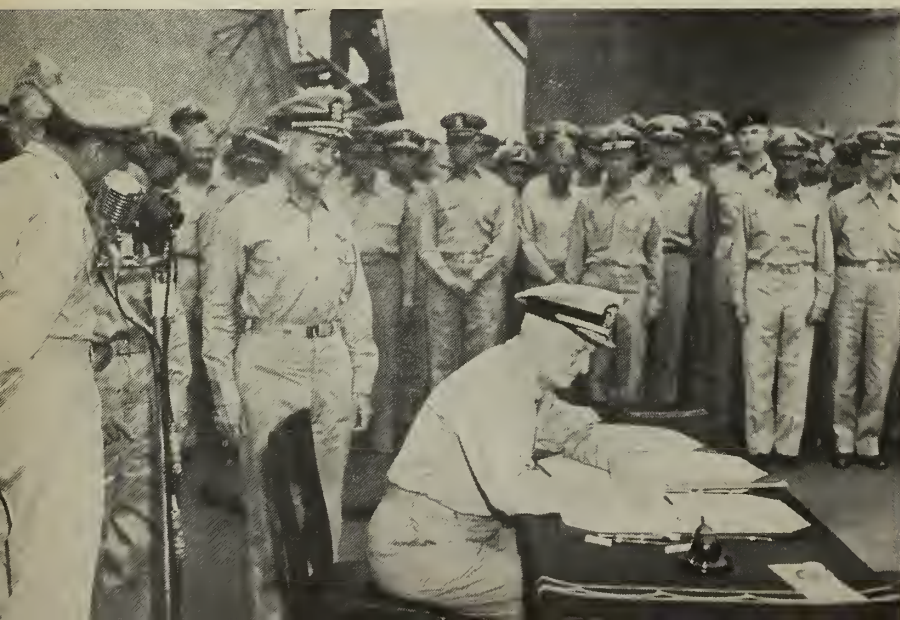
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ADM NIMITZ confers with Pres. Roosevelt, GEN MacArthur, and ADM Leahy. Rt: Shipboard talk with Pres. Truman.



PACIFIC FLEET BOSS—Wounded man gets medal at Pearl Harbor Hospital. Below: Fleet Admiral Nimitz takes turn signing Japanese surrender documents.



75-Year Salute To

Next month Fleet Admiral Chester W. Nimitz, USN, will be 75 years old. At that time he will be given one of the biggest birthday parties ever. The entire nation will honor this man who so ably led the U. S. Navy's Pacific Fleet through the World War II struggle against the Japanese.

ADMIRAL NIMITZ, the U.S. Navy's senior ranking officer, has campaigned with the U.S. Navy through some difficult periods. Just 10 days after Pearl Harbor, he was appointed Commander in Chief, U.S. Pacific Fleet. It was his job to put together what was left of the Pacific Fleet and to defeat the Japanese.

On 2 Sep 1945, less than four years after he became CINCPAC, the Japanese were defeated and Admiral Nimitz witnessed their surrender terms for the United States aboard USS Missouri (BB 63) in Tokyo Bay.

World War II was over, but for Admiral Nimitz it was just the beginning of a new challenge. On 15 Dec 1945, he relieved Fleet Admiral Ernest J. King, USN, as CNO.

This time, instead of building up the Navy, it was his job to cut its size—without cutting its power potential. But first, there were thousands of servicemen overseas who were waiting to get home. Operation Magic Carpet was put into effect, and warships became troop ships.

Fleet Admiral Nimitz's two-year tour as CNO was his last regular Navy assignment. He was relieved as CNO on 15 Dec 1947. Since then, Admiral Nimitz has been active in the affairs of government.

ADMIRAL NIMITZ started his naval career at the U.S. Naval Academy in 1901. He graduated seventh in his class of 114 in January 1905. After spending two years at sea as a midshipman—this was required then before commissioning—Admiral Nimitz was commissioned ensign.

A third of a century later he was appointed Rear Admiral, effective 23 Jun 1938. He went on to full admiral, to date from 31 Dec 1941; and Fleet Admiral in 1944.



Listening are ADMs Leahy, Mitscher.

A Hero

In 1907, as ensign, he commanded two ships in the Asiatic Fleet, *uss Panay* and *uss Decatur*. In 1909, he took command of the First Submarine Flotilla.

During most of World War I, Admiral Nimitz served in the Atlantic Submarine Force.

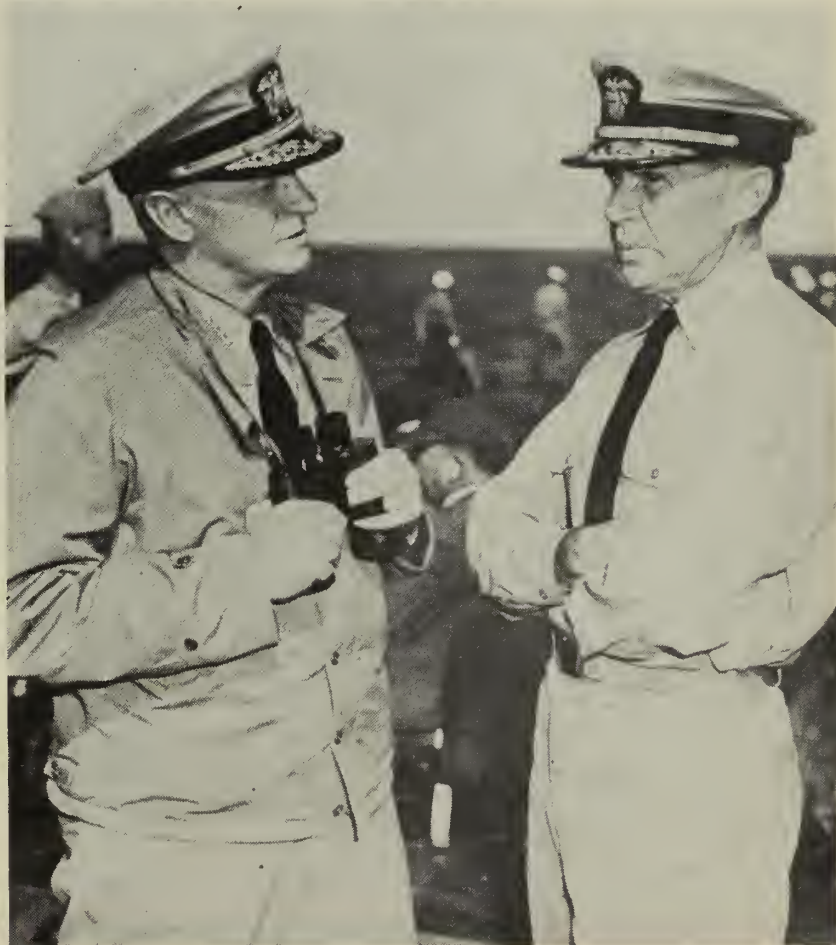
After several commands, of both submarines and surface ships, Admiral Nimitz became Chief of the Bureau of Navigation (now Bureau of Naval Personnel) on 15 Jun 1939. He was ordered to duty as CINCPAC on 17 Dec 1941.

Admiral Nimitz started at the foot of the ladder as a midshipman and now stands on the topmost rung. For his deeds and his service, this nation is paying him honor.

HERO'S WELCOME—ADM Nimitz is cheered by New Yorkers in parade.



JOINT OPERATIONS—Fleet Admiral Nimitz and then General of the Army Dwight D. Eisenhower toast in 1946. Below: Nimitz, Spruance confer at sea.



Brief news items about other branches of the armed services.

SMALL ELECTRIC UNITS—What next? Of all things, the Army has developed an electric light about the size of a pinhead and a radio transmitter no larger than an eraser on a pencil.

The new miniature light bulb is only one-tenth of an inch long and three one-hundredths of an inch in diameter. It will be used in many types of dials such as those on control panels in missile research and electric computers. This tiny lamp may also be used for examining cavities in scientific and industrial research, and in optical systems requiring a near-point source of light.

The radio transmitter was developed for use in ballistic studies. It can determine temperature of an artillery shell while in flight and can instantaneously radio the information back to ground receivers.

★ ★ ★

BEALE AIR FORCE BASE in California has been selected as the fifth operational base for the *Titan* intercontinental ballistic missile.

When *Titan* becomes operational, approximately 700 missileers from the Strategic Air Command will be assigned to an ICBM squadron to man the new missile installation at Beale.

The four previously selected *Titan* bases are Lowry AFB, Colo., Ellsworth AFB, S.D., Mountain Home AFB, Idaho, and Larson AFB, Wash.

★ ★ ★

SHELLS AND GUNS of the future may be equipped with special "noisemakers" designed to protect the hearing of the men who fire them.

Such a device would take advantage of a natural protective mechanism in the middle ear. Experiments at the Army Medical Research Laboratory, Fort Knox, Ky., have shown that this mechanism—known as the acoustic reflex—can be activated by a harmless noise sounded a split second before a gun goes off. How protective noise might be built into shells or guns, what the noise might sound like and how it might be delivered to the operator are questions to be answered through further research.

The reflex involves the tightening of the ear drum by the contraction of two muscles in the middle ear. The tightened ear drum, by vibrating less than it would if relaxed, is less likely to transmit vibration to the



BIG SHOT — Infantrymen demonstrate shoulder-fired 90mm recoilless rifle that will penetrate heaviest armor.



MACE MISSILE roars from ground shelter starting 500-mile trip from Holloman AFB, N. M., to Wendover AFB.

fluids of the inner ear. Captain John L. Fletcher, an Army psychologist, says it takes 9/1000ths of a second for the ear-protecting reflex cycle to be completed after a harmful sound is detected. The reflex works best against sustained sound, he reports.

Noise from a gun being fired is "impulsive," reaching a peak intensity in 2/1000ths of a second. Under ordinary circumstances it can damage the ear before the reflex has a chance to come into play. However, the Fort Knox experiments have shown that protection can be achieved by sounding a harmless conditioning tone one-fifth of a second before a gun fires and continuing it until the firing is completed.

Hearing impairment from gunfire noise can be temporary or permanent, slight or severe, depending on the individual and the quality of the noise. In any case, it is a big problem for the armed forces. Noise is also a problem for private industry, especially in factories using metal stamping machines and such.

In the tests at Fort Knox, 24 volunteers were studied after they had fired a .30 caliber machinegun which had an electric tone apparatus synchronized with it. A speaker emitting a very loud and harsh hum was placed near one ear of each of the men.

Each man fired 100 shots, with the reflex-activating tone starting one-fifth of a second before each shot. The men were given careful hearing tests afterward.

Twenty-four hours later, when any impairment that was due to the earlier firing had worn off, the same men fired another 100 shots—this time without the tone—and were again given hearing tests.

The hearing of seven volunteers, who apparently could stand higher-than-normal impulsive noise, was unaffected by the gunfire, either with or without the protective tone. The other 17 could all hear better after firing with the protective tone than they could after firing without it.

All 24 said their ears felt more comfortable firing with the tone.

In another study, comparable results were obtained among 15 tank crew members. In their case, the conditioning tone was synchronized with the tank guns and delivered to the men through their radio headsets.

ALBM, AN AIR-LAUNCHED BALLISTIC missile, has been successfully launched by an Air Force B-47 jet bomber.

This experimental air launch was conducted at the Atlantic Missile Range in the vicinity of Cape Canaveral, Fla. It was designed to demonstrate the feasibility of launching a ballistic missile from the air and to test the accuracy of its guidance system by firing it into the vicinity of the orbiting Explorer VI satellite.

Ground-based and airborne special-purpose cameras were used to collect photographic data at the coincidence point for the missile and satellite. Fire flares were released from the 199-B ALBM, at intervals during the flight, to aid the photographic effort.

★ ★ ★

THE ARMY QUARTERMASTER CORPS is buying more than 1000 German Shepherd dogs to be trained for sentry duty at missile sites across the nation.

The dogs must be between one and three years of age; have a shoulder height between a minimum of 23 inches and a maximum of 28 inches; and weigh between 60 and 90 pounds. Dogs of any inconspicuous color (other than white) are acceptable. Males are preferred. Females must be spayed at least 60 days before acceptance.

Although registration is not essential, the dogs must be physically and mentally sound, and must have typical German Shepherd characteristics. Alertness, aggressiveness and vigor are necessary qualities. Dogs which are noise- or gun-shy will not be accepted. Prices paid will be based upon the merits of the individual dog.

Anyone interested in selling a qualified animal is urged to contact the Office of The Quartermaster General, Installations Division (Attn: Contracting Officer), Washington 25, D. C., for further information.

★ ★ ★

FIVE STRATEGIC AIR COMMAND BASES will have their air defense boosted by five new *Nike-Hercules* missile sites being constructed by the Army.

Scheduled for completion in late 1960 or early 1961, these new air defense sites—part of the Department of Defense's Master Plan for Air Defense—will be



SMALLER—New Army breakthrough in miniaturization produces electronic gear five times smaller than before.



SUPER SENTRY—New Air Force radar antenna weighs more than 50 tons. It's to become part of SAGE defense.

located at Davis-Monthan AFB, Ariz.; Minot AFB, Idaho; Malstrom AFB, Mont; and Glasgow AFB, Mont.

★ ★ ★

"SNAKE BATTERIES," strung at intervals on submarine communications cables to boost volume and quality levels, have been developed for the Army Signal Corps.

The flexible zinc-silver chloride batteries, also called "electric eels," are activated when immersed in water. They can easily be wound on wire drums along with the cable.

In use, a battery is placed next to each repeater (the device used to increase the volume of a signal) and spliced into the cable at mile-distance points. The repeaters, which are transistorized, also are flexible and roll easily off the cable drums.

The batteries are flexible because of their segmented construction. Spool-shaped links of silver chloride are separated from zinc segments by rubber rings. A wire which spirals the length of the battery connects the sections.

The basic battery is five-eighths of an inch in diameter and 30 inches long.

★ ★ ★

AN AIR FORCE STAFF SERGEANT made a simulated plunge of 40,000 feet (7.5 miles) in less than a second.

This "fall" took place in the altitude chamber at Mitchell Air Force Base, N. Y. SSGT Richard P. Laauser, USAF, was placed in the chamber and an altitude of 65,000 feet was simulated. Suddenly he was "dropped" 25,000 feet while an electronic brain recorded his reactions.

The electronic doctor measured the sergeant's body temperature, respiration flow, respiration rate, heart beat rate, blood pressure and galvanic skin resistance during his fall.

The electronic doctor was designed to monitor human reactions under severe environmental conditions such as those which the space astronauts will encounter.

THE BULLETIN BOARD

This Roundup of State Bonuses May Put You in the Money

NAVYMEN WHO SERVED during the Korean conflict or during World War II may be eligible for one or more of the state bonuses listed in the following roundup.

To apply for a state bonus you will need a copy of your "Notice of Separation from the U. S. Naval Service" (NavPers 553) or "Report of Separation from the Armed Forces" (DD 214) and an application blank provided by the state.

If you are on active duty you may request your commanding officer to certify your service in the appropriate space on the application form by using your service record or other documents available to him. However, if the information cannot be obtained from available records you will have to make a statement under oath and this information will be included in your CO's certification.

No requests for detailed information as to your foreign service or other service data should be requested from the Bureau of Naval Personnel.

To be eligible to make application for a state bonus you will have to obtain proof of your residence. In most cases the home address you gave at the time of your enlistment or entry into service does not constitute complete proof of your legal residence.

Your legal residence will have to be substantiated by such documentary evidence as voting registration, tax data, etc.

Navy veterans who need copies of their separation documents may request them from the commandant of the naval district in which they are currently residing. If you have moved to another naval district since your separation and these documents are not in the possession of the commandant, then, when he receives your request, he will in turn request a certified copy from the district in which your separation papers are permanently retained.

This summary of the state bonuses granted to veterans of World War II, and those with service since 27

David J. Majchrzak, DN, USNR



"Funny, I was about to ask you how to get topside."

Jun 1950, is based on the latest information available. Procedures for making application are outlined below.

Bonuses for Korean Veterans

Illinois

Amount: \$100.

Service: Active duty in the armed forces of the United States on or after 27 Jun 1950 and before 27 Jul 1953. Separation from service under honorable conditions; earned the Korean Service Medal.

Residence: Resident of state of Illinois at least 12 months immediately preceding date of entering service.

Deadline: 1 Jul 1965.

Next of Kin: Eligible survivors of military personnel who died before 1 Jan 1955 of service injuries or disease contracted within the prescribed service period may qualify for a

\$1000 award. Survivors are recognized in the following order: Widow (or widowers), children, parents, brothers and sisters. A surviving spouse who remarried before 1 Jul 1959 is not eligible to collect a bonus payment.

For applications: Commandant (DCRO), Ninth Naval District, Building 1, Great Lakes, Ill.

Address inquiries to: Illinois Veterans' Commission, State Office Building, 401 South Spring Street, Springfield, Ill.

Iowa

Amount: \$10 per month for domestic service; \$12.50 per month for foreign service; \$500 maximum.

Service: Active duty in the armed forces of the United States between 27 Jun 1950 and 27 Jul 1953. Separation from service under honorable conditions. Persons still in service or retired from active service may apply. Minimum of 120 days' service before 25 Nov 1953 required.

Residence: Resident of state of Iowa at least six months immediately preceding date of entering service.

Deadline: 31 Dec 1960.

Next of Kin: If veteran died of service-connected causes between applicable periods of service, \$500 maximum, regardless of length of service. Eligible survivors include the unremarried spouse, children, parents.

For applications: Commandant (DCRO), Ninth Naval District, Building 1, Great Lakes, Ill.

Address inquiries to: Service Compensation Board, State House, Des Moines, Iowa.

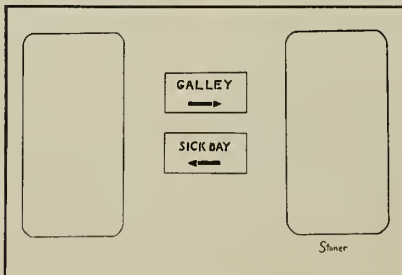
Massachusetts

Amount: \$300 for any foreign service. \$200 for more than six months' active service in the United States. \$100 for 90 days of state-side service.

Service: Minimum of 90 days' service between 25 Jun 1950 and 31 Jan 1955, inclusive.

Residence: Six months immediately before entry in military or naval service. Such residence status is proved by certification of assessor

All Navy Cartoon Contest
Donald Reid Stoner, PN3



at city or town in which applicant lived when he entered active service.

Deadline: None.

Next of Kin: If veteran died in service, \$300 to eligible survivor, otherwise, only the amount he would receive if alive.

Active duty personnel: Personnel who have been discharged and have reenlisted after 25 Jun 1950, and are serving regular enlistment contracts may apply. Three years on active duty after 25 Jun 1950 are required for indefinite enlistees and commissioned officers. A photostat of the "Report of Separation from the Armed Forces of the United States" (DD Form 214) must be filed with the application.

Information: Benefits have been established by the Massachusetts State Legislature to commissioned officers, warrant officers or indefinite enlistees who have served at least three years on active duty from 25 Jun 1950 and who have not yet been discharged or released under honorable conditions. Applicants must attach to application form a statement from commanding officer verifying period of service.

For applications: Commandant (DCRO), First Naval District, 495 Sumner Street, Boston 10, Mass.

Address inquiries to: Veterans' Bonus Commission, 15 Ashburton Place, Boston 8, Mass.

Montana

Amount: \$10 per month for state-side or foreign service exclusive of the Korean theater. \$15 per month for service in the Korean theater. Prisoners of war may qualify for a minimum of \$300 or a maximum of \$600.

Service: Active military service between 25 Jun 1950 and 16 Oct 1953, inclusive.

Residence: Resident of the state of Montana at time of entering service.

Deadline: 28 Jul 1961.

Next of Kin: If veteran died in active service, eligible survivors may collect \$500. Eligible survivors include: Unremarried widow, children or parents.

For applications: Commandant (DCRO), Thirteenth Naval District, Seattle 15, Wash.

Address inquiries to: Adjusted Compensation Division, P. O. Box 612, Helena, Mont.

New Hampshire

Amount: \$10 per month for service up to \$100 maximum.

Service: A minimum of 90 days between 25 Jun 1950 and 27 Jul 1953.

Residence: One year pre-service residency.

Deadline: 31 Dec 1960.

Next of kin: Survivors of deceased servicemen are eligible for the \$100 maximum. Next of kin recognized in the following order: Spouse, children, parents.

For applications: Commandant (DCRO), First Naval District, 495 Sumner St., Boston 10, Mass.

Address inquiries to: Adjutant General of New Hampshire, State Military Reservation, Concord, N. H.

North Dakota

Amount: \$12.50 per month for domestic service. \$17.50 per month for foreign service.

Service: Active service in the armed forces of the United States for more than 60 days between 25 Jun 1950 and 27 Jul 1953. Separation from service under honorable conditions. Persons still in service must furnish evidence that such service was honorable.

Residence: Resident of state of North Dakota at time of entering service and for six months before that time.

Deadline: 15 Feb 1960.

Next of kin: Same amount as for veteran if living but in no case less than \$600.

For applications: Commandant (DCRO), Ninth Naval District, Building 1, Great Lakes, Ill.

Address inquiries to: The State Adjutant General, Bismarck, N. D.

Pennsylvania

Amount: \$10 per month for domestic service. \$15 per month for

WAY BACK WHEN

Navy's George Washingtons

USS George Washington, SSB(N) 598, launched on 9 Jun 1959, is the third naval ship named for that famous American. This latest ship was launched little more than 161 years after the Navy acquired its first USS George Washington.

That 32-gun ship, which was purchased by the Navy in 1798, could fire 264 pounds of non-explosive shot in one volley.

During her short career there was a certain amount of humiliation for the ship. On one occasion, the Dey of Algiers forced her to carry his emissaries and gifts to the Grand Seignior of Constantinople.

And at least once the 624-ton ship carried American tribute to the Dey to buy the safety of American flag ships. It was events such as these that led to the

rallying cry "Millions for defense but not one cent for tribute." Later, Stephen Decatur's successful struggle against these some Mediterranean pirates helped to establish freedom of the seas.

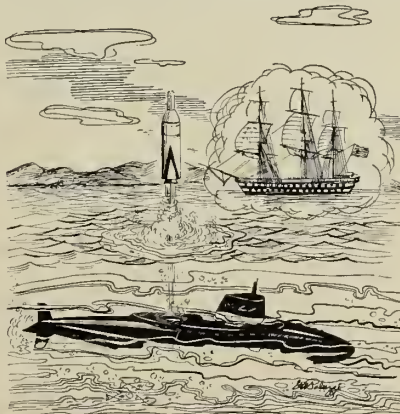
In 1802 George Washington was sold. Some 119 years later, in 1908, Germany built a ship named Washington and used her on the trans-Atlantic run. In 1917 it was seized by the United States and used through World War I as a troop transport.

In 1918, that ship carried President Woodrow Wilson to France for the Versailles Peace Conference. That marked the first trip to Europe by a U. S. chief executive.

Washington made a second voyage abroad with the President in 1919. Between these trips, she ferried soldiers home from European battlefields.

Later, George Washington was decommissioned, but only to be recolled for World War II service as USS Cotlin (AP 19). Following the war the ship was placed in the maritime Reserve Fleet at Hawkins Point, Baltimore, Md., until it was sold for scrap in 1951.

The latest George Washington bears no resemblance to its two predecessors. The 5400-ton Fleet ballistic missile submarine will be driven by a nuclear reactor which needs only occasional refueling, and it will be able to remain at sea almost indefinitely as a hidden, mobile missile launcher.



holders of the Korean Service Medal, awarded for duty in the Korean theater. \$500 maximum.

Service: Active service in the armed forces of the United States for more than 60 days between 25 Jun 1950 and 27 Jul 1953 and separation from service under honorable conditions. Note: When the above qualifications are met, payments will be made for service up to 27 Jan 1954.

Personnel who served on continuous active duty in the armed forces for four years before 25 Jun 1950 will not be eligible to receive the bonus on the basis of such service unless they are holders of the Korean Service Medal and were residents of Pennsylvania not only when they entered service but also on 8 Jul 1957, the day the bonus act was enacted.

Residence: Resident of state of Pennsylvania at time of entering service.

Deadline: 31 Dec 1963.

Next of kin: Survivors of a veteran who died in active service during the period 25 Jun 1950 and 27 Jul 1953, are eligible for the \$500 maximum payment.

For applications: Korean Conflict Veterans' Compensation Bureau, Department of Military Affairs, Commonwealth of Pennsylvania, Harrisburg, Pa.

Note: Original copies of "Report of Separation" (Form DD 214) should not be submitted with application because they will not be returned. If you had your separation papers recorded by a county Recorder of Deeds you may apply to that office for a certified copy. If the original document is in your possession you may now have it recorded and apply for a duly certified copy. If you entered the armed forces from Pennsylvania you may

obtain certified copies of your discharge papers from the state Selective Service Headquarters, Box 92, Harrisburg, Pa. In requesting a certified copy, you should give your name, address, selective service number and home address at the time you registered for the draft.

Vermont

Amount: \$10 per month not exceeding a total of 12 months. \$120 maximum.

Service: Honorable discharge from an enlisted status between 27 Jun 1950 and 31 Jan 1955.

Residence: One year immediately before entering service.

Deadline: None.

Next of kin: \$120 will be paid to the next of kin of veterans who died from service-connected causes. Next of kin in order are: widow or widower, remarriage does not bar entitlement; next of kin who are lineal heirs; and parents.

Amount veteran was entitled to by length of service will be paid to the next of kin, in order named above, of any veteran who has died from nonservice-connected causes.

For applications: Commandant (DCRO), First Naval District, 495 Sumner Street, Boston 10, Mass.

Address inquiries to: Office of the Adjutant General, State Office Building, Montpelier, Vt.

World War II State Bonuses

The states listed below are still accepting applications for bonus payments from World War II veterans until the designated deadline:

Massachusetts

Amount: \$100 for domestic service of less than six months. \$200 for domestic service of more than six months. \$300 for overseas service.

Service: Service between 16 Sep 1940 and 31 Dec 1946, both dates inclusive. Discharge or release other than dishonorable, or in active service.

Residence: Six months immediately before entering service.

Deadline: None.

Next of kin: Survivors of persons who died in service before 31 Dec 1946 may receive \$300. Otherwise, amount veteran would receive if alive.

For applications: Commandant (DCRO), First Naval District, 495 Sumner Street, Boston 10, Mass.

Address inquiries to: Veterans' Bonus Commission, 15 Ashburton Place, Boston 8, Mass.

New York

Amount: \$50 for 60 days or less of domestic service. \$150 for more than 60 days of domestic service. \$250 for any foreign service.

Service: Active duty between 7 Dec 1941 and 2 Sep 1945, both dates inclusive. Discharge under honorable conditions or still in service.

Residence: Six months immediately before service. Residence at time of application requirement removed in November 1949 election.

Deadline: None.

Next of kin: If death occurred in service, next of kin may receive \$250. Otherwise, amount veteran would receive if alive.

For applications: Commandant (DCRO), Third Naval District, 90 Church Street, New York 7, N. Y.

Address inquiries to: Veterans' Bonus Bureau, Department of Taxation and Finance, 1875 North Broadway, Albany 4, N. Y.

Vermont

Amount: \$10 per month (enlisted personnel only). \$120 maximum.

Service: Active service between 11 Sep 1941 and 30 Jun 1947, inclusive. Honorable separation.

Residence: Resident at time of entry and for one year immediately prior.

Deadline: None.

Next of kin: Survivors of persons dying in service may receive \$120. Otherwise, amount veteran would receive if alive. Remarriage does not bar widow's entitlement.

For applications: Commandant (DCRO), First Naval District, 495 Sumner Street, Boston 10, Mass.

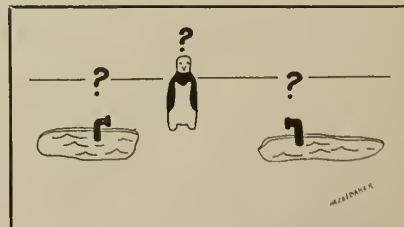
Address inquiries to: Office of the Adjutant General, State Office Building, Montpelier, Vt.

All Navy Cartoon Contest
David J. Majchrzak, DN, USNR



"Pass the salt, please."

All Navy Cartoon Contest
W. F. Hazelbaker, TE/RMC, USN



ALL HANDS

Applications Being Considered For Transfer to Supply And Civil Engineer Corps

Applications for transfer to the Supply and Civil Engineer Corps are now being sought from certain eligible line officers of the Regular Navy.

For Supply Corps transfers the deadline on submission of applications is 1 Feb 1960. For the Civil Engineer Corps the deadline is 1 Apr 1960. Applications should be forwarded, via commanding officers, so as to reach the Chief of Naval Personnel by these dates. The following rundowns will give you an idea of requirements, procedures and the like for such transfers.

Supply Corps

This opportunity is available to a limited number of permanently commissioned line officers of the Regular Navy. Those selected will be ordered to the Navy Supply Corps School at Athens, Ga., for six months' instruction in basic Supply Corps duties. Throughout their careers as Supply Corps officers, they will find their line training and background useful and valuable in handling many of their duties in military business administration.

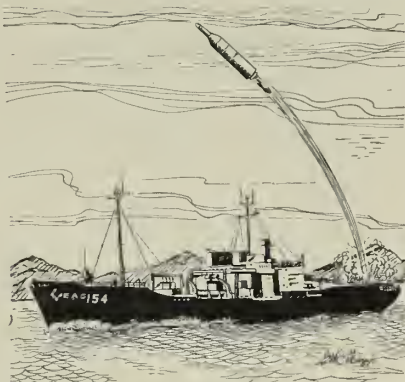
Male line officers—lieutenant and below—of the Regular Navy with a date of rank of 7 Jul 1957 and junior to lineal number 41522-00 are eligible. (Article C-1105 of the *BuPers Manual* is modified accordingly.) They must have completed at least one year of duty afloat as of 1 Feb 1960—and waivers of this requirement will not be granted.

Limited duty officers are not eligible for transfer. However, Article C-1317 of the *BuPers Manual* provides means by which they may apply for reclassification. Permanently commissioned warrant officers, regardless of their temporary rank, are not eligible.

There are special circumstances to be considered by those officers who were commissioned in the U. S. Navy from NROTC units. If you are in that category, and are selected for transfer, you will be issued a new appointment in the Supply Corps. In the process you will acquire a permanent status as a commissioned officer of the Regular Navy, which means you will no longer be subject

HOW DID IT START

Observation Island Has Polaris Too



USS Observation Island (EAG 154), commissioned on 5 Dec 1958, was converted from a cargo-type merchant ship. The conversion took 13 months.

Besides the Polaris missile-launcher which it carries aboard, this ship also carries navigation equipment similar to that which is installed in the new FBM submarines.

Outwardly there were several changes made to the ship. Forward of the superstructure is a navigational tower on which is mounted star trackers, or what might be described as miniature observatories.

These instruments are so sensitive that when pointed toward certain stars or

planets, the trackers automatically follow the bodies and give continuous celestial information for determining exact position.

The hull and engines of the ship, for the most part, were not changed. About the only addition was a roll stabilization system. The most conspicuous features resemble large fins and are used to counteract the ship's roll while underway. The Polaris-launching platform should be stable when the missile is fired.

Changes were made to the superstructure and hold to make room for the new navigational, fire control, launching and instrumentation system. With the addition of data acquisition equipment, Observation Island is a complete sea-going missile range. Extensive workshops are also installed to support the weapon system.

Here are Observation Island's vital statistics: length (over all)—563 feet; beam—76 feet; draft—24 feet; displacement (full load)—16,100 tons; shaft horsepower—17,500 (designed); speed—20 knots.

Two other U. S. Navy ships before Observation Island have been used as floating missile test launchers. They have been USS Norton Sound (AVM 11), which tested the Viking rocket, and the converted battleship USS Mississippi (AG 128), which tested the Terrier missile.

to selection for retention at the end of three years of commissioned service. Therefore, you must include the following statement in your application as a separate paragraph:

"I understand that if I am selected for transfer to the Supply Corps that I shall be tendered a new commission and a new appointment in the Supply Corps and therefore will acquire a permanent status as a commissioned officer of the Regular Navy and will no longer be subject to selection for retention at the end of three years of commissioned service. Further, I understand that acceptance of my commission and appointment in the Supply Corps precludes my option of requesting release to inactive duty at the termination of three years of commissioned service."

Some Naval Academy graduates whose line commissions might be revoked for physical reasons could be eligible for transfer to the Supply Corps. If such is the case with you, and you are motivated toward a career in military business manage-

ment, you should submit a Report of Medical Examination (Standard Form 88), in duplicate, and a Report of Medical History (Standard Form 89), with your application.

Each applicant is to include, in a separate paragraph of his application, a statement to the effect that he will not resign or request release from active duty during the curriculum, if he is selected for transfer to the Supply Corps and assigned to the Navy Supply Corps School. He must also agree to serve on active duty for at least one year after completing the course. (This will not reduce any period of obligated service incurred upon commissioning or at any subsequent time.)

Applications for transfer to the Supply Corps should be forwarded—via commanding officer—to the Chief of Naval Personnel (Attn: Pers B136) in time to reach the Bureau by 1 Feb 1960. The endorsement by your CO (or officer-in-charge) should include an evaluation of your professional qualifications and performance and a recommendation as

to your suitability for duty in the Supply Corps.

The Chief of Naval Personnel will acknowledge applications and retain them on file for consideration by a selection board which will convene on or about 25 Feb 1960. Applicants will be informed of the board's action as soon as possible after the board has adjourned.

BuPers Notice 1210, of 21 Oct 1959, is the directive covering line officer transfers to the Supply Corps.

Civil Engineer Corps

To be eligible for a CEC transfer, you must be a line officer junior to lineal number 55891-00, as per the "Register of Commissioned and Warrant Officers of the U. S. Navy and Marine Corps and Reserve Officers on active duty as of 1 January 1959." You must also have completed at least one year of active duty by 1 Apr 1960. (Waivers of this requirement will not be granted.)

In addition, you should possess a bachelor's degree—in one of the fields listed below—from a college or university accredited by the Engineers' Council for Professional Development, Committee on Engineering Schools (as listed in the Department of Health, Education and Welfare bulletin entitled *Accredited Higher Institutions*):

- Architecture or Architectural Engineering.
- Civil Engineering.
- Electrical Engineering.
- Mechanical Engineering.
- Mining Engineering.
- Petroleum Engineering.

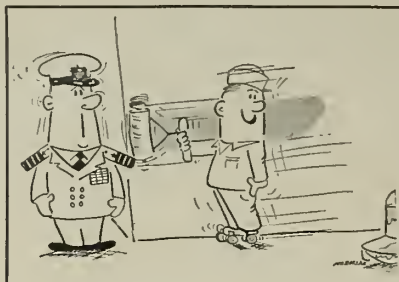
Those who hold baccalaureates in other fields of engineering will be considered on an individual basis to determine their eligibility for transfer to the Civil Engineer Corps.

The special circumstances which apply to Supply Corps transferees who were commissioned in the U. S. Navy from NROTC Units also apply to CEC transferees. Therefore, a statement similar to the one quoted in the Supply Corps section of this article must be included as a separate paragraph in applications from these officers.

Applications should be in letter form. They must be forwarded to the Chief of Naval Personnel (Attn: Pers B136), via commanding officers, in time to reach the Bureau by 1 Apr 1960.

The Chief of Naval Personnel will

David J. Majchrzak, DN, USNR



"Wheeee!"

acknowledge applications and retain them on file for consideration by a selection board which will convene on or about 15 Apr 1960. As soon as possible after the board has adjourned, applicants will be informed of the board's decision on their cases.

Line-to-CEC transfers are discussed in BuPers Notice 1210, of 19 Oct 1959.

First Sea Launching Of Navy's Polaris

A *Polaris* test vehicle was successfully fired late last summer from USS *Observation Island* (AG 154) off Cape Canaveral in the Atlantic Missile Range.

Performance was satisfactory and all test objectives appeared to have been reached in this first *Polaris* launching from a ship at sea.

The 28-foot missile was fired from a compressed air tube below deck. As the countdown reached zero, compressed air popped the *Polaris* out of the tube and, when the missile reached an altitude of about 70 feet, its first-stage engine ignited.

Spurting a tail of white smoke, the missile curved high in the sky and sped down range 700 miles to fulfill this test vehicle's programmed range. A bright flash of fire shortly after launching disclosed ignition of the second stage.

Compression chambers similar to the one used aboard *Observation Island* will launch *Polaris* from submarines. These chambers, similar to torpedo-launching tubes, will enable a built-in firing mechanism to trigger the first-stage engine above water.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in November. For other movies available, see earlier issues of **ALL HANDS**.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan.

For the First Time (1403) (WS) (C): Musical; Mario Lanza, Johann Van Kozian.

Island Woman (1404): Melodrama; Marie Windsor.

The Rebel Set (1405): Melodrama; Gregg Palmer, Kathleen Crowley.

The Five Pennies (1406): Musical; Barbara Bel Geddes, Danny Kaye.

Say One For Me (1407) (WS) (C): Musical; Bing Crosby, Debbie Reynolds.

Middle Of The Night (1408): Drama; Frederic March, Kim Novak.

Face Of Fire (1409): Melodrama; Cameron Mitchell, James Whitmore.

The Last Train From Gun Hill (1410) (C): Western; Kirk Douglas, Anthony Quinn.

Anatomy Of A Murder (1411): Drama; James Stewart, Lee Remick.

Holiday For Lovers (1412) (WS) (C): Comedy-Drama; Clifton Webb, Jane Wyman.

Hercules (1413) (WS) (C): Drama; Steve Reeves, Sylvia Koscina.

The Bat (1414): Melodrama; Vincent Price, Agnes Moorehead.

North by Northwest (1415) (C): Drama; Cary Grant, Eva Marie Saint.

Blue Denim (1416) (WS): Drama; Carol Lynley, Brandon DeWilde.

The Big Operator (1417) (WS): Melodrama; Mickey Rooney, Steve Cochran.

Battle Of The Coral Sea (1418): Drama; Cliff Robertson, Gia Scala.

Report on Living Conditions on Okinawa for Navy Families

RECEIVED ORDERS for Okinawa? Here's the scoop on duty at the station—according to those who should know best—the people who have lived there:

Okinawa is approximately 6500 miles from San Francisco and 830 miles southwest of Tokyo. It is the largest and most important of the more than 100 islands of the Ryukyu Archipelago, which stretches from southern Japan to Formosa.

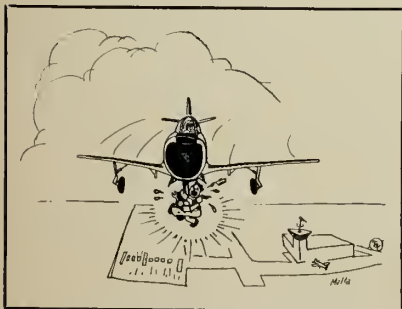
The island is 65 miles long, and from two to 12 miles wide, with almost impenetrable mountains in the north, and coral reefs and rich farm lands in the south.

Most of the people prefer to wear western dress, though a few traditional kimonos may be seen from time to time. Naha, the capital city of Okinawa, is about as western a city as can be found in Asia. Naha's streets feature shops with English signs, English-speaking clerks, and many American cars.

Because of Okinawa's location in the China Sea, the island is the target of passing typhoons. Each year, three or four typhoons do some damage. Winds of over 100 miles per hour are not unusual during one of these storms. Damage by typhoons is small, however, because of the modern tracking and warning systems maintained on the island. Houses are largely typhoon-proof, but power and telephone lines are not.

Owing to the influence of the Japanese current, Okinawa has a sub-tropical maritime climate, comparable to Palm Beach. Extreme temperatures are rare, and summer rarely sees temperatures over 90 degrees.

All Navy Cartoon Contest
A. J. Malta, SN, USN



"That doggone mechanic! The wheels still stick in the down position!"

This, however, coupled with the high relative humidity, can cause discomfort. During the winter months, there is a damp chill in the air, again caused by the humidity, which makes winter clothing welcome.

Housing: The Navy on Okinawa has housing on base, and in six off-base areas varying from three to 18 miles from Naha. There are 275 houses currently assigned to Navy dependents. These consist of two- and three-bedroom quonsets and concrete block houses.

Quonsets on the base have been classified as sub-standard and rent for either \$36.00 or \$45.00. All other government housing is paid for by the disbursing officer, utilizing BAQ. At present the waiting period for government housing is six to eight months.

All eligible naval personnel are assigned housing on "The date departed the U. S." basis. No housing is assigned specific units with the exception of the MOQ on the Naval Air Facility and the Admiral's Quarters. All others, regardless of unit or rank, are placed on one list and offered housing when they reach the head of the list. Those who take advantage of the limited private rentals retain their place on the list and may elect to take government quarters or remain in private rental. If Navy housing is desired they must inform the Housing Officer, or persons below them on the list will be offered the housing. No hotel accommodations for dependents are available.

Bachelor officers occupy small three- or four-bedroom BOQs. A service fee of \$8.00 per month covers all laundry, house cleaning and maid service.

Enlisted personnel with no dependents on board are billeted in either quonset huts or concrete barracks.

Household Equipment: These items are furnished in government housing:

Electric range	Dining table
Refrigerator	Dining chairs
Sectional divan	Beds
Mattresses and spring	Table lamps
Chests of drawers	Floor lamps
End tables	Coffee tables
Lounge chairs	Buffets
Occasional chairs	Vanity — dressers

Refrigerators vary in size from six to 12 cubic feet and there is no guarantee as to the size assigned. Some people prefer to bring their own refrigerator to be assured of enough cooler space.

Beds may be either twin or double size, depending on the housing assigned.

These items are *not* furnished:

Electric appliances	Freezers
Radios	Linens
Television	Draperies
Clocks	Washing machines
Baby furniture	Dryers
Rugs	Kitchen utensils
Dishes and glassware	Silverware

Fiber rugs are very cheap and practicable and are purchased through the Base Exchange.

All cooking is done with electricity. There is no gas, either natural or bottled, on Okinawa. Electricity is 110V-60 cycle and all stateside appliances may be used.

Transportation: The newer cars will suffer from humidity and salt spray, and the speed limit for the island is 30 mph maximum—a speed not recommended for high compression engines. Consequently, while a car comes in very handy, Okinawa is one place where an old Ford fares better than a new Cadillac. If a new car is brought over, both an undercoat and a wax job are essential. The tires take a beating from the coral on the island; new treads are recommended. A retreading firm on the island can take care of such matters. Exchange service stations provide all necessary services and

All Navy Cartoon Contest
Alfred B. Castro, SA, USN



"How many times have I told you to let me handle the difficult jobs?" Now, hand me those wires!"

local garages provide satisfactory repair services.

Schools: Schools are available for all grades. An elementary school and an excellent high school are located on the island, for all dependent children. Transportation to and from schools is furnished.

Clothing: The winter uniform is worn approximately three months out of a year, therefore, bring both summer and winter uniforms. Off duty, civilian clothes may be worn. Temperature and humidity make clothing hard to care for and have made Okinawa a pretty casual station in this respect. For women, summer clothing of cotton, light silk, rayon, nylon and linen is desirable most of the year, as mentioned above. It is suggested that you take a complete wardrobe for each member of your family. Make certain you have plenty of shoes, lingerie, children's sports clothing and all clothing and toilet items for infants. "Washable" is the keynote for Okinawan clothing. Dry cleaners on the island are not equipped to handle delicate materials.

Women wear hats occasionally, but kerchiefs are popular headgear. Furs and leather items such as luggage are very vulnerable to the damp climate. Many find it to their liking, and also cheaper, to purchase material, of which there is an excellent stock, and have clothing made by the local tailors or dress-makers. However, ready-made clothing is available at the PX, and at local stores.

Pets: It is recommended that pets be left at home. However, if you decide to bring a pet, the only formal entry requirements are complete immunization and a restriction of two pets per family. If a dog is older than two months he must have a rabies shot certificate. Shots can be administered by the base veterinarian. A small fee for the shot includes the license. No quarantine period is imposed upon arrival of pets except the time required for examination and checking the vaccination record. Canned dogfood is stocked at Base Exchanges.

Immunizations: The following are needed before embarkation:

Smallpox — Vaccination or revaccination within one year.

Typhoid; Paratyphoid — Basic

David J. Majchrzak, DN, USNR



"I am the ship's barber."

series or booster within one year.

Tetanus—Basic series or booster within four years.

Cholera—Basic series or booster within six months for children under six months only. D. P. T. immunizations are required. Routine shots are required from the age of six months or older.

Poliomyelitis—Immunization must be administered to all persons less than 40 years old, traveling to overseas areas, who have not had basic series. If one year has elapsed since the completion of the basic series, one reimmunization is required. At least the first dose will be administered before beginning travel. Additional required doses not administered before travel will be given in overseas areas. Those more than 40 years old may be vaccinated on a voluntary basis.

Check with authorities ahead of time for other inoculations.

Passports: Passports are required for dependents. Upon receipt, at Com 12 headquarters, of the appli-

David J. Majchrzak, DN, USNR



"That new ship's barber won't last long."

cation for transportation overseas, pertinent information will be forwarded concerning passports and other helpful information.

Disbursing and Financial: The Disbursing Office is located in the NAF supply building. All financial transactions on or off base are conducted with United States currency.

If travel pay was drawn before reporting to Okinawa, it is best to check with the Disbursing Office as soon as possible to fill out a travel itinerary. Travel claims take a while to process, but this will insure that your pay check is not affected.

Complete banking facilities are offered on the base. In addition to checking and savings accounts, there is a complete travel service, including tickets, shipping and other assistance. American Express is set up to telegraph flowers, cable money, sell travelers checks, cash checks and issue auto and home insurance. Officers and Petty Officers may have their pay deposited into checking and savings accounts maintained here.

Medical and Dental Care: The Naval Air Facility maintains an efficient dispensary for those needing medical assistance at any time of the day or night.

The NAF dental dispensary is equipped with the most modern equipment on the island. Except for emergencies, sick call hours are for making dental appointments and examinations. No orthodontic work is done.

Religion: Catholic, Protestant and Jewish religious services are provided for the Navy family.

Post Office: NAF has its own post office which is authorized to sell stamps, money orders and receive and dispatch all classes of mail.

The average transit time for air mail and air parcel post to the States is seven days. Ordinary mail, parcel post and newspapers are usually received in from five to six weeks. Geographic location of your unit should never be used with the FPO address. Mailing addresses for the different naval units vary.

Small Stores: A complete line of enlisted clothing and a limited stock of officers' summer wear items is maintained.

There is some difficulty in obtaining officers' uniforms on Okinawa.

Fine uniforms, at very reasonable prices, may be purchased in Hong Kong or Japan.

Base Exchange: The Ryukyus Central Exchanges offer a wide selection of both necessary and luxury items at reasonable prices. Jewelry, cameras, radios, phonographs, hardware, toilet items, magazines, records and many other items are kept in stock. A wide selection of gift items from Japan, Thailand, Italy, Germany and England is featured. The Exchanges are open six days a week.

Commissary: Four military commissaries offer a selection of food stuffs comparable to that found in larger stateside supermarkets. Meats, fresh fruit, and vegetables and locally produced baked items are featured in addition to a complete line of name brand canned foods.

Dependents, bachelor officers and civilians as well as chiefs on separate rations are authorized purchasers. Each buyer, however, must have a permit, obtained at the Commissary Office.

Recreation: In addition to facilities offered by the Naval Air Facility itself, naval personnel are encouraged to participate in all Air Force activities on Naha Air Base. Recreation facilities include motion picture theatres, clubs, a six-lane bowling alley, a golf course and driving range, and several hobby shops. Football, softball, judo and swimming, on the intramural and inter-command levels, are part of the recreational program.

Many Americans turn to deep-sea fishing on Okinawa. As for hunting, there are ducks, doves and some tiny quail.

One of the most popular hobbies on the island is photography. The scenery furnishes a wide variety of subjects — beaches, rugged hills, primitive villages, terraced rice paddies and checkerboard gardens on the hillsides.

Beaches and Rest Centers: Okinawa has some of the most beautiful beaches in the Pacific. The water is warm, crystal clear and alive with countless varieties of tropical fish.

Yaka is the site of the enlisted men's rest center, north of Ishikawa beach, on the west side of the island. The rest camp offers enlisted personnel and their families a complete line of recreational facilities for a few days of leave or a weekend.

Okuma is the site of the officers' rest center, and is located on the East China Sea side of Okinawa, about 50 miles north of Sukiran. Beautiful beaches, good meals, a variety of recreational equipment, and boats make this an ideal place for vacations. Reservations may be required, especially for family groups.

Beaches: At present, Ishikawa, Yaka and Okima are the only approved swimming beaches for general use of armed forces personnel. Other beaches may be used for picnics and wading. Skin divers must conform to current safety regula-

tions, details of which are available at the Personnel Office.

Island Transportation: Okinawa has a lot to offer the sightseer, and one of the native busses is the best way to get an informal tour of the country. *However*, if you have anywhere definite to go, or any specific time set to be there—take a taxi. Not only are the busses marked in Japanese, but few, if any, of the drivers feel obligated to follow a definite route to a definite point. They occasionally drive as the spirit moves them. It's fun, but uncertain.

Restaurants: During your stay on Okinawa, bear this in mind: Not all eating places or bars are approved for military personnel. This applies both to food and drinks as well as surroundings.

Adult Education: There are considerable opportunities for educational advancement at the Naval Air Facility. The Education Officer is located in Bldg. #163 and is ready to offer assistance in your efforts to better yourself whether it be through Navy Correspondence Courses and Navy Training Courses, (through advancement in rate), USAFI courses, college and university courses either by correspondence or by actual attendance at locally established classes (as offered by the University of Maryland at present) or by correspondence with stateside Departments of Education.

Library: An excellent library is available for all personnel at the Naha Air Base or the Naval Air Facility. The library is open daily from 0900 to 2200.

Ironsides Sails Again

"Old Ironsides" (*uss Constitution*), with her war-tattered ensign streaming from the peak of the mizzenmast gaff, got underway recently at Charlestown, Mass.

It was the annual voyage for the old frigate and it took her about one nautical mile from her berth at the Boston Naval Shipyard in Charlestown, Mass. The short voyage is accomplished annually with the help of tugs which turn the wooden ship around to prevent the masts and yardarms from being warped by prevailing winds and sun.

After about two hours, the 165-year-old warship was back in the berth where she was again readied for visitors, about 400,000 a year.

NOW HERE'S THIS

Answer Box

"Good afternoon. This is a recorded announcement of ships' movements of Submarine Squadron 12 for January 29th."

Thus begins a one-minute telephone recording which has become quite a hit with SubRon 12 dependents—and with telephone operators at the Naval Base, Key West, Fla.

The announcement comes from a little grey "answer box" installed in the Squadron's Operations Office to take care of phone calls from dependents of squadron members. Thanks to this device, the wife of a SubRon 12 Navyman can now find out when and where to meet her husband's ship as easily as she can dial the local weather report.

Kept up-to-date by the Operations Office, the gadget gives firm and approximate arrival times, tells where ships will be berthed, and also furnishes information on ships out of Key West on overnight and unclassified operations, together with their dates of return.

Paid for by the Squadron's recreation fund, the Silent Service's answering service has proved such a success that other naval activities in the Key West area are now having similar devices installed.



It's That Time Again — Here's How the Last Exams Turned Out

ABOUT 46,000 enlisted persons were advanced in rate last month as a result of the August 1959 Navy-wide examinations. In February, examinations will again be given. POs will also compete this time as they try for the hat.

To give you some idea of how the picture looks in your particular rating, here is a list of the actual num-

bers that were promoted in each rating in December. Emergency service ratings not listed are included with the corresponding general service ratings. "All" indicates that all who passed the examination were advanced. The dash (—) indicates there were no exams in the rating.

The following table will give you the scores:

Rating Passed Advanced Passed Advanced Passed Advanced

GROUP I (Deck)	E-4		E-5		E-6	
BM	1494	400	1187	100	1108	100
QM	373	All	137	All	117	All
RD	904	All	499	All	68	All
SM	449	All	180	All	51	All
SO	—	—	—	—	46	All
SOA	38	All	38	All	—	—
SOG	327	All	181	All	—	—
SOS	56	All	26	All	—	—
SOO	45	All	—	—	—	—

GROUP II (Ordnance)

FT	—	—	329	All	154	73
FTA	428	All	—	—	—	—
FTE	1	All	—	—	—	—
FTG	10	All	—	—	—	—
FTL	119	All	—	—	—	—
FTM	342	All	—	—	—	—
FTU	25	All	—	—	—	—
GM	924	500	577	100	606	100
GS	145	All	43	All	43	25
MN	31	All	58	27	55	4
NW	115	All	31	All	29	All
TM	283	All	135	All	164	114

GROUP III (Electronics)

ET	—	—	491	All	103	All
ETN	484	All	—	—	—	—
ETR	437	All	—	—	—	—
ETS	23	All	—	—	—	—

GROUP IV (Precision Equipment)

IM	40	20	21	16	12	2
OM	30	All	10	All	6	All

GROUP V (Admin. and Clerical)

CT	513	500	317	All	75	57
CS	953	390	896	100	565	50
DK	277	All	119	All	110	20
JO	102	All	24	All	7	All
MA	141	All	74	All	36	18
PN	803	All	362	310	251	110
RM	1343	All	593	All	158	All
SH	746	190	457	20	329	10
SK	961	All	547	All	361	223
TE(RM)	—	—	13	All	21	All
TE(YN)	—	—	—	—	12	4
YN	1415	All	816	470	653	200

GROUP VI (Misc.)

DM	142	100	47	All	6	All
LI	75	50	25	6	30	3
MU	81	All	76	All	21	All

Rating Passed Advanced Passed Advanced Passed Advanced

GROUP VII (Engineering & Hull)	E-4		E-5		E-6	
BR	—	—	—	—	7	All
BT	1173	All	543	All	165	143
DC	315	245	197	50	241	10
EM	1285	All	817	All	190	All
EN	1078	All	728	All	605	425
IC	581	All	311	All	35	All
ML	12	All	13	4	10	1
MM	1694	All	740	All	189	All
MR	282	All	148	All	28	All
PM	20	18	12	All	2	All
SF	—	—	—	—	316	135
SFM	315	All	221	All	—	—
SFP	348	All	180	All	—	—

GROUP VIII (Construction)

BU	—	—	—	—	32	All
BUH	17	All	10	All	—	—
BUL	167	All	57	All	—	—
BUR	53	All	26	All	—	—
CE	—	—	—	—	16	All
CEP	33	All	16	All	—	—
CES	14	All	4	All	—	—
CET	25	All	10	All	—	—
CEW	41	All	25	All	—	—
CM	—	—	—	—	48	10
CMA	75	All	42	20	—	—
CMH	32	All	21	12	—	—
EO	—	—	—	—	119	12
EOH	115	100	67	21	—	—
EON	113	57	82	10	—	—
SV	23	All	10	All	2	All
SW	—	—	—	—	22	12
SWE	27	All	10	All	—	—
SWF	21	All	18	All	—	—
UT	—	—	—	—	22	14
UTA	17	All	7	All	—	—
UTB	20	All	3	All	—	—
UTP	61	All	30	All	—	—
UTW	9	All	6	All	—	—

GROUP IX (Aviation)

AB	—	—	172	125	156	74
ABG	159	95	—	—	—	—
ABU	326	285	—	—	—	—
AC	—	—	—	—	99	62
ACR	11	All	27	20	—	—
ACT	169	All	137	90	—	—
ACW	176	All	117	80	—	—
AD	—	—	1360	400	1132	150
ADJ	604	All	—	—	—	—
ADR	608	All	—	—	—	—
AE	—	—	528	All	145	All
AEI	219	170	—	—	—	—
AEM	731	600	—	—	—	—

Rating	Passed	Advanced	Passed	Advanced	Passed	Advanced	Rating	Passed	Advanced	Passed	Advanced	Passed	Advanced
GROUP IX Cont.	E-4		E-5		E-6		GROUP IX Cont.	E-4		E-5		E-6	
(Aviation)							(Aviation)						
AG	264	All	133	All	30	All	PHA	94	80	—	—	—	—
AK	588	385	202	112	148	39	PHG	228	220	—	—	—	—
AM	—	—	—	—	209	190	PR	77	All	61	All	60	10
AME	144	30	36	All	—	—	PT	13	All	7	All	8	All
AMH	551	520	256	All	—	—	TD	—	—	101	80	78	22
AMS	868	750	430	All	—	—	TDI	126	All	—	—	—	—
AO	371	All	305	150	251	50	TDR	42	All	—	—	—	—
AQ	—	—	133	All	57	36	GROUP X						
AQB	54	All	—	—	—	—	(Medical)						
AQF	97	All	—	—	—	—	HM	1939	1200	1167	500	928	300
AT	—	—	822	All	164	All	GROUP XI						
ATN	675	All	—	—	—	—	(Dental)						
ATR	369	All	—	—	—	—	DT	332	265	121	88	102	5
ATS	127	All	—	—	—	—	GROUP XII						
GF	53	30	51	20	13	5	(Steward)						
PH	—	—	160	All	86	28	SD	1565	80	813	60	499	20

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Note: This listing of directives covers a two-month period.

Alnavs

No. 47—Announced approval by the President of the reports of selection boards which recommended USN women officers for permanent promotion to the grade of commander and of USN and USNR officers to captain and commander, Medical Corps; Chaplain Corps; Supply Corps; Civil Engineer Corps; Dental Corps; Medical Service Corps and Nurse Corps.

No. 48—Announced the convening of selection boards to recommend line officers on active duty (except TARs) for temporary promotion to the grades of lieutenant commander and lieutenant; and for permanent promotion of USN women line officers to the grade of lieutenant commander.

No. 49—Announced approval by the President of the report of a selection board which recommended Marine Corps officers for temporary promotion to the grade of lieutenant colonel.

No. 50—Announced the death of General of the Army George C. Marshall at Walter Reed Hospital on 16 October.

No. 51, 52—Pertained to the burial of General of the Army George C. Marshall at Arlington National Cemetery.

No. 53—Announced approval by the President of a report by a selection board which recommended line officers on active duty for temporary promotion to the grade of commander.

No. 54—Announced that a need exists for additional student naval aviators for the second half of fiscal year 1960.

No. 55—Announced that, on 1 Dec 1959, all functions of the Bureau of Aeronautics and Ordnance

would be transferred to the Bureau of Naval Weapons (BuWeaps).

No. 56—Announced approval by the President of the reports of selection boards which recommended women Marine Corps officers on active duty for promotion to the grades of major and captain and Marine Corps officers on active duty for temporary promotion to the grade of captain.

No. 57—Required that the issue and resale of cranberries from certain areas be suspended.

No. 58—Announced the convening of selection boards to recommend staff corps officers on active duty (except TARs) for temporary promotion to lieutenant commander and lieutenant.

No. 59—Cancelled Alnav 57.

No. 60—Reminded all personnel that the approaching winter season would require renewed attention to possible highway hazards and worsened traffic conditions.

No. 61—Announced approval by the President of the reports of selection boards which recommended promotion of USN men and women line officers to the grades of lieutenant and lieutenant commander.

No. 62—Announced that applications from limited duty officer and integration candidates who took examinations on 15 June must be received in the Bureau of Naval Personnel not later than 15 December.

BuPers Instructions

No. 1000.9A—Advises naval activities as to the proper method of procurement, accounting and administration of U. S. Army personnel

All-Navy Cartoon Contest
C. W. Paavilainen, BU2, USN



"I'm sorry you can't stay here, mister. They're going to fire a rocket this way from Cape Canaveral."

on duty with the U. S. Navy.

No. 1000.15A—Announces the establishment of a PACFLT, WESTPAC and MIDPAC Leadership Field Team.

No. 1001.10D—Describes the prerequisites, administrative policies and procedures pertaining to Naval Reserve officers on active duty in connection with the training and administration of the Naval Reserve.

No. 1130.4F—Announces Change No. 2 to the basic instruction, concerned with enlistment in the Regu-

lar Navy of Naval Reserve personnel on active duty.

No. 1231.1A—Sets forth instructions and procedures for the Flight Status Selection Board.

No. 1301.23B—Describes the procedures to be used in effecting transfers of USN and USNR commissioned and warrant officers on active duty to armed services hospitals and medical facilities for treatment.

No. 1430.12A—Provides instructions for administration of the fiscal

year 1960 proficiency pay program.

No. 1440.5C—Announces information and regulations concerning changes in rate and rating of enlisted personnel on active duty.

No. 1520.6H—Provides information concerning applications from USN and USNR line officers on active duty and from Naval Academy and Regular NROTC midshipmen for the submarine school classes convening quarterly in January, April, July and October.

No. 1520.7A—Requests applications from code 110X and 17XX male naval officers for training in underwater demolition.

No. 5510.3G—Discusses requirements and procedures for security clearance of personnel ordered to duty under instruction in schools and courses requiring access to classified material.

BuPers Notices

No. 1085 (24 September)—Directed special attention in annual and other service-record verifications to the submarine designator (SS).

No. 5321 (14 October)—Deleted the requirement for submission of the Roster of Officers (NavPers 353).

No. 1210 (19 October)—Invited applications from certain permanently commissioned USN line officers for transfer to the Civil Engineer Corps.

No. 1210 (19 October)—Invited applications from certain permanently commissioned line USN officers for transfer to the Civil Engineer Corps.

No. 1210 (21 October)—Invited applications from eligible and career-motivated permanently commissioned USN line officers who are interested in transferring to the Supply Corps.

No. 1210 (21 October)—Invited applications from permanently commissioned USN line officers who are interested in transferring to the Supply Corps.

No. 1813 (23 October)—Modified provisions of the *BuPers Manual* to insure that no change is made in rating upon effecting transfer to the Fleet Reserve except in the case of certain USNR personnel.

No. 1418 (27 October)—Announced the schedule for service-wide examinations for enlisted personnel to be held in February.

No. 1080 (28 October)—Provided a standard procedure for personnel

What's the Chance of Moving Up after February Exam?

Based on past statistics, here are the chances you have of being rated as a result of the February exams. Here's what the numbers in the table below indicate:

- 1—Chances are excellent. Of those who pass, 70 to 100 per cent can be advanced.
- 2—Good. Of those who pass, from 35 to 70 per cent may be advanced.
- 3—Fair. From 10 to 35 per cent may be advanced.
- 4—Poor. Less than 10 per cent of those who pass the examination may be advanced.

RATING	E-4	E-5	E-6	E-7	RATING	E-4	E-5	E-6	E-7
GROUP I					EM	1	1	1	3
BM	3	3	3	1	EN	1	1	1	3
QM	1	1	2	1	IC	1	1	1	1
RD	1	1	1	3	ML	1	3	4	1
SM	1	1	1	1	MM	1	1	1	1
SO	1	1	1	1	MR	1	1	1	3
GROUP II					PM	1	1	1	1
FT	1	1	2	3	SF	1	1	2	4
GM	2	3	3	2	GROUP VIII				
GS	1	1	2	1	BU	1	1	1	4
MN	1	2	3	2	CE	1	1	1	1
NW	1	1	1	1	CM	1	2	4	4
TM	1	1	1	1	EO	2	3	4	4
GROUP III					SV	1	1	1	1
ET	1	1	1	2	SW	1	1	2	3
GROUP IV					UT	1	1	2	1
IM	2	1	3	2	GROUP IX				
OM	1	1	1	1	AB	1	1	2	4
GROUP V					AC	1	2	2	3
CS	2	3	4	3	AD	1	3	3	2
CT	1	1	1	3	AE	1	1	1	3
DK	1	1	3	2	AG	1	1	1	2
JO	1	1	1	1	AK	2	2	3	3
MA	1	1	2	2	AM	1	1	1	2
PN	1	1	2	3	AO	1	2	3	1
RM	1	1	1	3	AQ	1	2	2	3
SH	3	4	4	4	AT	1	1	1	1
SK	1	1	2	1	GF	3	2	2	3
TE(RM)			1	3	PH	1	1	3	3
YN	1	2	3	3	PR	1	2	3	3
GROUP VI					PT	1	1	1	1
DM	2	1	1	3	TD	1	1	3	3
LI	2	3	4	3	GROUP X				
MU	1	1	1	1	HM	2	3	3	1
GROUP VII					GROUP XI				
BR			1	1	DT	1	1	4	3
BT	1	1	1	3	GROUP XII				
DC	1	3	4	3	SD	4	4	4	4

accounting of officer and enlisted personnel with ultimate orders to ships being reactivated from Reserve Fleet status, new construction, major conversions, and ships acquired from building activities.

No. 1430 (5 November)—Announced that certain personnel would be advanced in rating to senior and master chief petty officer.

No. 7220 (6 November)—Requested information on the number of naval personnel authorized and receiving basic allowance for subsistence when rations in kind are not available.

No. 1430 (9 November)—Provided information regarding advancements resulting from the August Navy-wide examinations, and regarding the opportunities for advancement which it is estimated will exist in the February exams.

No. 1221 (16 November)—Alerted all commands to the distribution of the *Manual of Navy Enlisted Classifications* and provided instructions for specific coding actions.

No. 1210 (20 November)—Notified the naval service of the designator changes to be made as a result of the transfer of line LDO categories to the 6XXX numerical series.

No. 1611 (20 November)—Announced that, under certain conditions, it would be unnecessary to submit fitness reports for brief periods of time.

No. 1700 (23 November)—Announced the fifth All-Navy comic cartoon contest.

Scholarships for Navy Juniors Set Up by Officers' Wives

The Officers' Wives Club of the U.S. Naval Training Center, Bainbridge, Md., has established an annual scholarship award for the academic years, 1960-61, 1961-62, 1962-63. The award of \$250 per year will be used for education at the college level.

The recipient of the award will be selected on the basis of need, scholastic standing, character and leadership. Those eligible must be:

- A dependent son or daughter of an officer or an enlisted man of the regular Navy or Marine Corps, who is serving on active duty, retired with pay, or who has died on active duty or following retirement.
- A graduate or prospective grad-

uate of an accredited high school or one with equivalent standards of education. (A student already attending college may apply.)

If several individuals have equal qualifications, preference will be given to an applicant who is a dependent of naval or Marine Corps personnel who are or have been stationed at Bainbridge, Md.

The scholarship must be used for educational expenses at an accredited college for the academic year following the grant.

Application forms may be obtained from the Chief of Naval Personnel (Pers-G221), Navy Department, Washington 25, D. C., or from any naval district commandant.

These applications must be returned to the Bureau of Naval Personnel no later than 20 March. The recipient of the award will be announced in May.

List of New and Revised Correspondence Courses for Officers and Enlisted Men

One new officer correspondence course and nine new enlisted correspondence courses are now available to Regular and Reserve Navymen.

The officer course—**Leadership** (NavPers 10903-A)—is given in six assignments, and is evaluated at 12 points credit for purposes of Naval Reserve retirement and promotion.

The new enlisted courses are:

Dental Technician Prosthetic 3 & 2 (NavPers 91686-1)—eight assignments and 24 retirement points.

Steward 1 & C (NavPers 91696)—three assignments and nine retirement points.

Steward 3 & 2 (NavPers 91693-2)—five assignments and 15 retirement points.

Aviation Storekeeper 3 & 2 (NavPers 91674)—seven assignments and a total of 21 retirement points.

David J. Majchrzak, DN, USNR



"If voodoo works you're in trouble, Chief!"

Ship's Serviceman Barber Handbook (NavPers 91465-1)—two assignments and six retirement points.

Boatswain's Mate 1 & C (NavPers 91245-2)—five assignments and 15 retirement points.

Ship's Serviceman 1 & C (NavPers 91450)—five assignments and 15 retirement points.

Builder 1 & C (NavPers 91586-1)—seven assignments and 21 retirement points.

Mineman 1 & C, Volume I (NavPers 91336-1)—five assignments and 15 retirement points.

The above courses may be retaken for repeat Naval Reserve credit.

Another officer correspondence course—**Basic Nuclear Physics** (NP 10901-A)—has been re-evaluated at 20 promotion and retirement points. These will be credited as follows:

Unit 1—12 points upon satisfactory completion of assignments 1 through 3.

Unit 2—Eight points upon satisfactory completion of assignments 4 and 5.

The Reserve Officer Recording Activity at Omaha, Neb., will make the necessary changes without action on the part of the individuals concerned.

A total of 16 enlisted correspondence courses have been discontinued in the latest action on the subject. They are:

Builder C (NavPers 91586-B)

Builder 1 (NavPers 91585-1A)

Mineman 1 (NavPers 91336-B)

Mineman C (NavPers 91337-A)

Steward 1 (NavPers 91694-D)

Steward C (NavPers 91695-B)

Boatswain's Mate 1 (NavPers 91244-1B)

Boatswain's Mate C (NavPers 91245-1C)

Aircraft Engines (NavPers 91628-1C)

Handbook for Dental Prosthetic Tech. 3 (NavPers 91685)

Handbook for Dental Prosthetic Tech. 2 (NavPers 91686-B)

Ship's Serviceman 1 (NavPers 91448-1A)

Ship's Serviceman C (NavPers 91449-1)

Torpedoman's Mate 1 (NavPers 91305-B)

Torpedoman's Mate C (NavPers 91307-B)

Ship's Serviceman Barber Handbook (NavPers 91465-A).

BOOKS

A LITTLE OF EVERYTHING IN THIS MONTH'S CHOICE

AS A RULE, a general theme may be found in each of the group of books selected for review. Not this time. Subjects range from Hawaii to the South Pole; from philosophy to sheer adventure. Look for some of them at your ship or station library.

If you've ever been stationed at Pearl Harbor, you'll be interested in *Hawaii*, by James A. (*South Pacific*) Michener. Here is the story of Hawaii, told in terms of the people who made it and the forces of nature which shaped it. He first tells the story of the island's creation millions of years before man, as the volcanic islands rose from the sea, fell again, were rebuilt by the coral, by beds of lava, and slowly populated by vegetation and life. Then came the passionate, courageous and adventurous seafarers from other islands—and finally the missionaries. Michener then describes the advent of the traders, land owners, merchants, shippers and planters—founders of dynasties who for generations controlled the social, political and economic power of the island. The circumstances under which Hawaii acquired its polyglot nature are dealt with fully.

90° South, by Paul Siple, is the other obvious geographical selection. Paul Siple was the Boy Scout chosen to accompany RADM Richard E. Byrd's first expedition to the Antarctic in 1927. Since that time, Siple's life has been primarily concerned with arctic exploration and, during the winter (summer months, to us) of 1956/57 he was in command of the civilian scientists who lived at the South Pole in connection with the U. S. contributions to IGY. Dr. Siple tells of the history of early south-polar exploration, of his personal reminiscences of ADM Byrd, and details of everyday life and problems on what may very well be the coldest spot on earth. (On 18 Sep 1957, the temperature was minus 102.1 F, and all hands were disappointed because it didn't go lower.) The primary accent of his story, however, is on the 24 Seabees who built the eight huts in which the party lived, and the experiences of the 18 men who spent a year in the community. Good reading.

Good reading of rugged men in tough situations may also be found

in *Most Dangerous Sea*, a history of mining and mine warfare by LCDR Arnold S. Lott, usn. *Dangerous Sea* is not a bare recital of the operations of the minesweepers. It is primarily the story of the men who took their wooden-hulled, unmanned ships into the enemy's front yard, or monotonously swept the channels of our own ports. Reservists will be interested to note that the U. S. Navy's minelayer and minesweeper personnel (except for a few senior officers) were almost exclusively Reservists who, up to the present have received little publicity and few rewards for daring deeds well done. That oversight is now remedied.

Behind Enemy Lines by James D. Sanderson also has plenty of adventure and tales of courage. It consists of 10 accounts of suicidal missions of World War II in which success or survival depended on minute-to-minute guts and ingenuity. The men involved did not fight in great battles as line troops. They fought as raiders, as partisans, as pilots, as snipers—mostly behind enemy lines. A small group lands behind German lines in North Africa to raid Rommel's headquarters and "eliminate" the general; four "human torpedoes"

sink the battleships *Valiant* and *Queen Elizabeth*; a team parachutes into occupied Norway to blow up a super-secret German plant; a miner organizes a guerrilla band in the Philippines; a tiny private army roams the North African desert, fighting a hit-and-run war with armed jeeps. Strictly gee-whiz stuff. Interestingly enough, all the "heroes" were decidedly non-conformists.

To bring your blood pressure down to normal, you might consider *Triumph in the West*, by Sir Arthur Bryant, and *The Question of National Defense* by Oskar Morgenstern. Most of the preceding volumes were concerned with events at the operational level. Here, we review the "why" behind the events. *Triumph* is history written as it was being made, based upon the personal diaries of Field Marshall Lord Alanbrooke. It is the sequel to *The Turn of the Tide* which describes World War II from September 1943 to VE Day, 8 May 1945. It discusses the men who made history—Churchill, Eisenhower, Stalin and Roosevelt—and the decisions they had to make: The Italian campaign, the invasion of southern France, D-Day; and records the progress of the war from the planning boards to the battlefield.

The Question of National Defense takes the position that, if we were to be attacked now, our present system of national defense couldn't possibly save us. Our missile and bomber bases, situated permanently in well-known areas, would be wiped out before they got off the ground. The solution? Navymen will be happy to know that he proposes that we move our bases off land and put them on the oceans. Our ballistic missiles would be fired from submerged nuclear-powered submarines that would move about freely. We could also use nuclear-powered seaplanes, supported on the oceans from submarines. Does the proposal sound familiar? It should. The Chief of Naval Operations has been suggesting such a course for years.

One fiction title selected this month is *The Strong Men* by John Brick. It is concerned with the Revolutionary War and Valley Forge.

The Library Services Branch also includes for your consideration *How to Speak and Write With Humor* by Percy H. Whiting. The publisher's blurb recommends it to those who not only enjoy being funny but have to be. Now, make us laugh, Mac.

For Quarter of a Century

Naval Customs, Traditions, and Usage—for 25 years a leading reference book among Navymen—is now available in a new and much-revised edition.

Written by Vice Admiral Leland P. Lovette, usn (Ret.), the book was originally published in 1934. Since then it has gained wide acceptance as an important source of information on naval and nautical lore, service etiquette and such.

In the new, fourth edition about half the material which appeared in earlier versions has been rewritten, and most of the remaining text has been thoroughly revised. An entirely new chapter on the Marine Corps has been added, and many of the illustrations are also new.

The book is published by the United States Naval Institute, Annapolis, Md.



Book Supplement —

Sewing Up the Subs

During World War I (as in World War II), German subs at one time very nearly tipped the scales of victory. However, the subs could be severely handicapped if their outlets to the Atlantic—the Strait of Dover to the south and the passageway of the North Sea that stretched between the Shetland Islands and Norway to the north, could be closed. The problem and its solution are described here by RADM (later Admiral) William S. Sims, USN.

BY APRIL 1917, the British had laid more than 30,000 mines in the Bight of Heligoland, and were then increasing these obstructions at the rate of 3000 mines a month. Yet this vast explosive field did not prevent the Germans from sending their submarines to sea. The enemy sweepers were dragging out channels through the mine-fields almost as rapidly as the British were putting new fields down. We could not prevent this, because protecting vessels could not remain so near the German bases without losses from submarine attacks.

Moreover, the Germans also laid mines in the same area in order to trap the British mine-layers; and these operations resulted in very considerable losses on each side. These impediments made the egress of a submarine a difficult and nerve-racking process; it sometimes required two or three days and the assistance of a dozen or so surface vessels to get a few submarines through the Heligoland Bight into open waters. Several were unquestionably destroyed in the operation, yet the ac-

tivity of submarines in the Atlantic showed that these mine-fields were no more than a harassing measure.

It was estimated that, to be effective, the North Sea barrage would require about 400,000 mines, far more than existed in the world at that time, and far more than all our manufacturing resources could then produce within a reasonable period.

WE DID NOT HAVE a mine which could be laid in such deep waters in sufficient numbers to have formed any barrier at all; and even if we had possessed one, the construction of the barrage would have demanded such an enormous number that they could not have been manufactured in time to finish the barrage until late in the year 1918. (The principal fact which made possible this great enterprise was the invention of an entirely new type of mine.)

The old mine consisted of a huge steel globe, filled with high explosive, which could be fired only by contact. That is, it was necessary for the surface of a ship, such as a submarine, to strike against the surface of the mine, and in this way start the mechanism which ignited the explosive charge.

The fact that this immediate contact was essential enormously increased the difficulty of successfully min-

Abridged *Victory at Sea*, by Rear Admiral William S. Sims, USN, with copyright date of 1919, 1920, published by Doubleday, Page & Company. Reprinted with permission of Mrs. William S. Sims, copyright owner.



HERE'S HOW the mine barrage, some 250 miles long, bottled up the German submarines in the North Sea.

ing waters that ranged in depth from 400 to 900 feet. If the mines were laid anywhere near the surface, the submarine, merely by diving beneath them, could avoid all danger; if they were laid at any considerable depth, it could sail with complete safety above them.

Thus, if such a mine were to be used at all, we should have had to plant several layers, one under the other, down to a depth of about 250 feet, so that the submarine, at whatever depth it might be sailing, would be likely to strike one of these obstructions. This required such a large number of mines as to render the whole project impossible.

IT WAS an American who invented an entirely new type of mine and therefore solved this difficulty.

In the summer of 1917 Mr. Ralph C. Browne, an electrical engineer of Salem, Mass., offered a submarine gun for the consideration of CDR S. P. Fullinwider, USN, who was then in charge of the mining section of the Bureau of Ordnance. As a submarine gun this invention did not seem to offer many chances of success, but CDR Fullinwider realized that it contained a firing device of great promise. The Bureau of Ordnance, assisted by Mr. Browne, spent the summer and fall experimenting with this contrivance and perfecting it; the English mining officers who had been sent to America to cooperate with the U. S. Navy expressed great enthusiasm over it; and some time about the beginning of August 1917, the Bureau of Ordnance came to the conclusion that it was a demonstrated success.

The details of Mr. Browne's invention are too intricate for description here, but its main point is comprehensible enough. Its great advantage was that it was not necessary for the submarine to strike the mine to explode it.

The mine could be located at any depth and from it a long "antenna," a thin copper cable, reached up to within a few feet of the surface, where it was supported

in that position by a small metal buoy. Any metallic substance, such as the hull of a submarine, simply by striking this antenna at any point, would produce an electric current, which, transmitted to the mine, would cause this mine to explode.

THE GREAT ADVANTAGE of this device is at once apparent. Only about one fourth of the number of mines required under the old conditions would now be necessary. The Mining Section estimated that 100,000 mines would form a barrier that would be extremely dangerous to submarines passing over it or through it. This implies more than a mere saving in manufacturing resources; it meant that we would need a proportionately smaller number of mine-laying ships, crews, officers, bases, and supplies.

Another circumstance which made the barrage a feasible enterprise was that by the last of the year 1917 it was realized that the submarine had ceased to be a decisive factor in the war. It still remained a serious embarrassment, and every measure which could possibly thwart it should be adopted. But the writings of German officers which have been published since the war make it apparent that they themselves realized early in 1918 that they would have to place their hopes of victory on something else besides the submarine.

But the submarines were still a distinct menace and they were still causing serious losses. The more energetically we prosecuted every form of opposition, the earlier would the enemy's general morale break down and victory be assured.

THEREFORE, on November 2, 1917, the so-called "Northern Barrage" project was officially adopted by both the American and British governments. The proposed mine-field was as long as the distance from Washington to New York. Nothing like it had ever been attempted before. The combined operation involved a

mass of detail which the lay mind can hardly comprehend. The cost—\$40,000,000—is perhaps not an astonishing figure in the statistics of this war, but it gives some conception of the size of the undertaking.

During the two years preceding the war, Captain Reginald R. Belknap commanded the mine-laying squadron of the Atlantic Fleet. Although his force was small, consisting principally of two antiquated warships, USS *Baltimore* and *San Francisco*, Captain Belknap had performed his duties conscientiously and ably, and his little squadron therefore gave us an excellent foundation on which to build.

Before the European War the business of mine-laying had been unpopular in the American Navy as well as in the British; such an occupation, as Sir Eric Geddes once said, had been regarded as something like that of "rat catching." As hostilities went on, however, and the mine developed great value as an anti-submarine weapon, this branch of the service began to receive more respectful attention.

Captain Belknap's work not only provided the nucleus out of which the great American mine force was developed, but he was chiefly responsible for organizing this force. The "active front" of our mine-laying squadron was found in the North Sea; but the sources of supply lay in a dozen shipyards and several hundred manufacturing plants in the United States.

WE BEGAN THIS WORK with practically nothing; we had to obtain ships and transform them into mine-layers; to enlist and to train their crews; to manufacture at least 100,000 mines; to create bases both in the United States and Scotland; to transport all of our supplies more than 3,000 miles of wintry sea, part of the course lying in the submarine zone; and we had to do all this before the real business of planting could begin.

Captain Belknap's men were very proud of their mine-layers and in many details they represented an improvement over anything which had been hitherto employed in such a service.

Originally, these mine-layers had been coastwise vessels; two of them were *Bunker Hill* and *Massachusetts*,

GERMAN SUB TARGETS—Mine barrage helped protect convoys crossing the Atlantic by cutting down enemy subs.



ON THE WAY—Cranes load railway cars with mines to be delivered to the Fleet of ten minelayers for planting.

which for years had been "outside line" boats, running from New York to Boston; all had dropped the names which had served them in civil life and were rechristened for the most part with names which eloquently testified to their American origin — *Canonicus*, *Shawmut*, *Quinnebaug*, *Housatonic*, *Saranac*, *Roanoke*, *Aroostook*, and *Canandaigua*.

These changes in name were entirely suitable, for by the time our forces had completed their alterations the ships bore few resemblances to their former state. The cabins and saloons had been gutted, leaving the hulls little more than empty shells; three decks for carrying mines had been installed; on all these decks little railroad tracks had been built on which the mines could be rolled along the lower decks to the elevators and along the upper mine deck to the stern and dropped into the sea.

Particularly novel details, something entirely new in mine-layers, were the elevators, the purpose of which was to bring the mines rapidly down from the lower decks to the launching track. So rapidly did the work





ON THE BALL—Hard-working Navymen formed a well trained team completing gigantic job in record time.

progress, and so well were the crews trained, that, in May 1918, the first of these 10 ships weighed anchor and started for their destination in Scotland.

THE MINES WERE LAID in a series of 13 expeditions, or "excursions," as our men somewhat cheerfully called them. The 10 mine-layers participated in each "excursion," all 10 together laying about 5,400 mines at every trip. Each trip to the field of action was practically a duplicate of the others; a description of one will, therefore, serve for all.

After days, and sometimes after weeks of preparation the squadron, usually on a dark and misty night, showing no lights or signals, would weigh anchor, slip by the rocky palisades of Moray Firth, and stealthily creep out to sea. As the ships passed through the nets and other obstructions and reached open waters, the speed in-

creased, the gunners took their stations at their batteries, and suddenly from a dark horizon came a group of low, rapidly moving vessels; these were the British destroyers from the Grand Fleet which had been sent to escort the expedition and protect it from submarines.

The absolute silence of the whole proceeding was impressive; not one of the mine-layers gave the slightest sign of recognition; all these details had been arranged in advance, and everything now worked with complete precision. The swishing of the water on the sides and the slow churning of the propellers were the only sounds that could possibly betray the ships to their hidden enemies.

After the ships had steamed a few more miles the dawn began to break; and now a still more inspiring sight met our men. A squadron of battleships, with scout cruisers and destroyers, suddenly appeared over the horizon. This fine force likewise swept on, apparently paying not the slightest attention to our vessels. They steamed steadily southward, and in an hour or so had entirely disappeared.

The observer would hardly have guessed that this squadron from Admiral Beatty's fleet at Scapa Flow had anything to do with the American and British mine-layers. Its business, however, was to establish a wall of steel and shotted guns between these forces and the German battle fleet at Kiel.

NOW IN THE OPEN SEAS the 10 mine-layers formed in two columns, abreast of each other and 500 yards apart, and started for the waters of the barrage. Twelve destroyers surrounded them, on the lookout for submarines, for the ships were now in the track of the U-boats bound for their hunting ground or returning to their home ports.

At a flash from the flagship all slackened speed, and put out their paravanes — those under-water outrigger affairs which protected the ships from mines; for it was not at all unlikely that the Germans would place some of their own mines in this field, for the benefit of the barrage builders.

This operation took only a few minutes; then another flash, and the squadron again increased its speed. It steamed the distance across the North Sea to Udsire

ON THE JOB—USS *Shawmut* was one of 10 ships converted from coastwise vessels for special minelaying job.



Light, then turned west again and headed for that mathematical spot on the ocean which was known as the "start point" — the place, that is, where the mine-laying was to begin.

In carrying out all these maneuvers the commander was thinking not only of the present, but of the future; for the time would come, after the war had ended, when it would be necessary to remove all these mines, and it was therefore wise to "fix" them as accurately as possible in reference to landmarks, so as to know where to look for them. All this time the men were at their stations, examining the mines to see that everything was ready, testing the laying mechanisms, and mentally rehearsing their duties.

AT ABOUT FOUR O'CLOCK a signal came from the flagship:

"Have everything ready, for the squadron will reach 'start point' in an hour and mine-laying will begin."

Up to this time the ships were sailing in two columns; when they came within seven miles of "start point," another signal was broken out; the ships all wheeled like a company of soldiers, each turning sharply to the right, so that in a few minutes, instead of two columns, we had eight ships in line abreast, with the remaining two, also in line abreast, sailing ahead of them.

This splendid array, keeping perfect position, approached the starting point like a line of racehorses passing under the wire. Not a ship was off this line by so much as a quarter length; the whole atmosphere was one of eagerness; the officers all had their eyes fixed upon the stern of the flagship, for the glimpse of the red flag which would be the signal to begin. Suddenly the flag was hauled down, indicating:

"First mine over."

If you had been following one of these ships, you would probably have been surprised at the apparent simplicity of the task. The vessel was going at its full speed; at intervals of a few seconds a huge black object, about five feet high, would be observed gliding toward the stern; at this point it would pause for a second or two, as though suspended in air; it would then give a mighty lurch, fall head first into the water, sending up a great splash, and then sink beneath the waves.

By the time the disturbance was over the ship would have advanced a considerable distance; then, in a few seconds, another black object would roll toward the stern, make a similar plunge, and disappear. You might have followed the same ship for two or three hours, watching these mines fall overboard at intervals of about fifteen seconds.

THERE WERE FOUR PLANTERS, each of which could and did on several trips lay about 860 mines in three hours and thirty-five minutes, in a single line about 44 miles long. These were *Canandaigua*, *Canonicus*, *Housatonic*, and *Roanoke*.

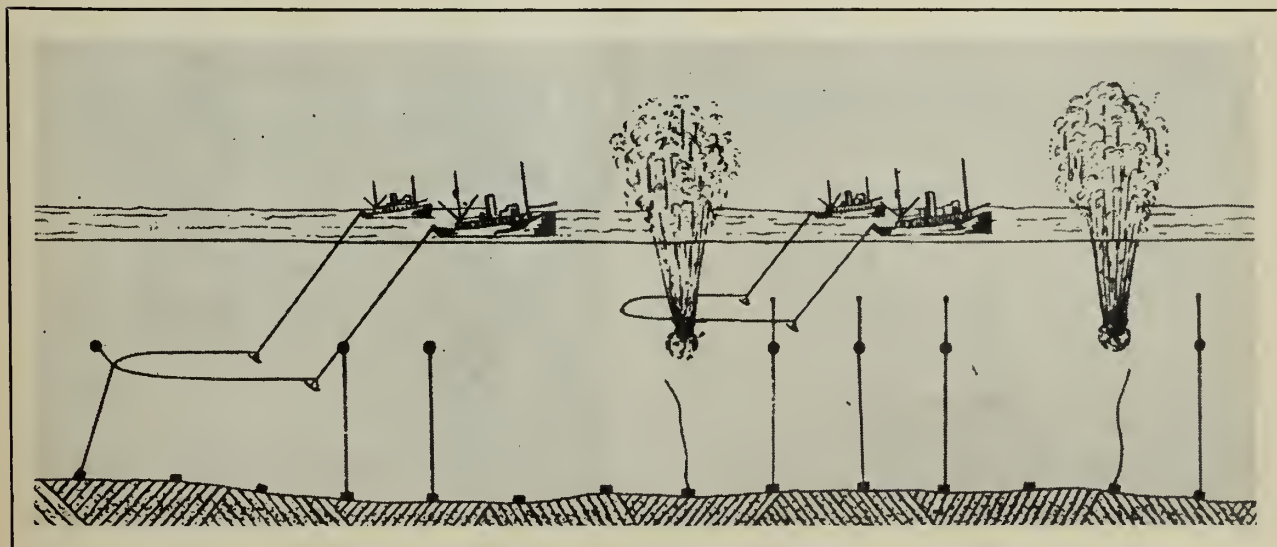
Occasionally, the monotony of this procedure would be enlivened by a terrible explosion, a great geyser of water rising where a mine had only recently disappeared. This meant that the "egg," as the sailors called it, had gone off spontaneously, without the existence of any external contact. Such accidents were part of the game, the records showing that about four per cent of all the mines indulged in such initial premature explosions.

For the most part, however, nothing happened to disturb the steady mechanical routine. The mines went over with such regularity that, to an observer, the whole proceeding seemed hardly the work of a human agency. Yet every detail had been arranged months before in the United States; the mines fell into the sea in accordance with a time table which had been prepared in Newport before the vessels started for Scotland. Every man on the ship had a particular duty to perform and each performed it in the way in which he had been schooled under the direction of Captain Belknap.

It took a crew of hard-working, begrimed, and sweaty men to keep these mines moving and going over the stern at the regularly appointed intervals. After three or four hours had been spent in this way and the ships had started back to their base, the decks would sometimes be covered with the sleeping figures of exhausted men.

It would be impossible to speak too appreciatively of the spirit they displayed; in the whole summer there was not a single mishap of any importance. The men all felt that they were engaged in a task which had never been accomplished before, and their exhilaration increased with almost every mine that was laid.

DIAGRAM OF big sweeping job that came after the war shows how mines with antennas formed effective barrier.



TAFFRAIL TALK

WE'RE HAPPY to know that whatever we do is news to someone. Over the past year or so, we've noted that our activities have been the subject of numerous articles in kindred publications. Apparently we are as important to our fellow journalists as we think we are.

We quote: "All Hands Must Carry Responsibility for Defense of Country," says the "Boston Naval Shipyard News." As we look about the office at the News Desk, the Research Section and the Art Department, we shudder for the safety of our country.

Not only must we defend our country, but we must do it economically. Again we quote, this time from the "Jax Air News": "Responsibility of Conserving Funds Is An All Hands Job." An excellent idea and one we're about to act upon almost any day. If we can make our funds stretch out until payday, we'll be all set.

However, our activities are not confined to the larger issues of the day. We too, are compelled to cope with the dull mechanics of day-to-day living. The "Gator" tells its public: "Moving Uses All Hands for Phi Gru Two," and, again, a publication whose name escapes us at the moment asserts: "All Hands Asked to Cooperate in Fire Prevention." Make up your mind, will you, buster? We can only do one thing at a time.

However, life does have its lighter moments for us. Another unnamed publication offers the headline: "Dance Committee Invites All Hands to Turkey Trot," and, presumably while there, according to "The Beam," of Corpus Christi, "Operation Pickup Is All Hands Job." Nice work if you can get it.

We don't remember the details but apparently the evening was a success.

"All Hands Absent," reports the "Hoist" of NTC San Diego. Presumably the morning after.

★ ★ ★

We are not the only ones who lead an active life. We refer you to the busy destiny of G. F. Williams of Newport, R. I. Here's the situation:

In June of 1958 Williams, then DC1, took his exams for W-1 and LDO; in November, for proficiency pay. In January, he started off the year by drawing his first pro-pay check. Then he took his CPO exam. Shortly after, the Warrant Officer eligibility list appeared and whose name turned up? You're correct.

A few weeks later, the CPO exam results were published—and sure enough. Two weeks later, Williams learned he had been selected for ensign in the LDO program.

This brings us up to October 1959. Most of the month was comparatively dull, but he did have a few busy days. On 28 October, Mrs. Williams gave birth to a son, with the anxious father being credited with an assist just as the family arrived at the hospital. On 29 October, with his wife in the hospital with son No. 2, Williams took emergency leave to take care of No. 1 son, returning the next day to duty to be sworn in as W-1.

This month Mr. Williams assumes the rank of ensign. Who says there is lack of opportunity in the Navy?

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

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• AT RIGHT: OH BUOY—Cruisemen of USS Des Moines (CA 134) moor to a buoy as the Sixth Fleet Flagship pulls into port at Valletta, Malta, during break in operations in the Mediterranean.

ALL HANDS



in this issue
**THE QUESTIONING
NAVYMAN**

This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

359.05

A 416

FEBRUARY 1960



Sailors of many countries are interested in keeping the ocean highways free. Pictured here are typical representatives. At left, two Dutch seamen are trying out new guns. Right, Swedish navymen inspect jet plane.



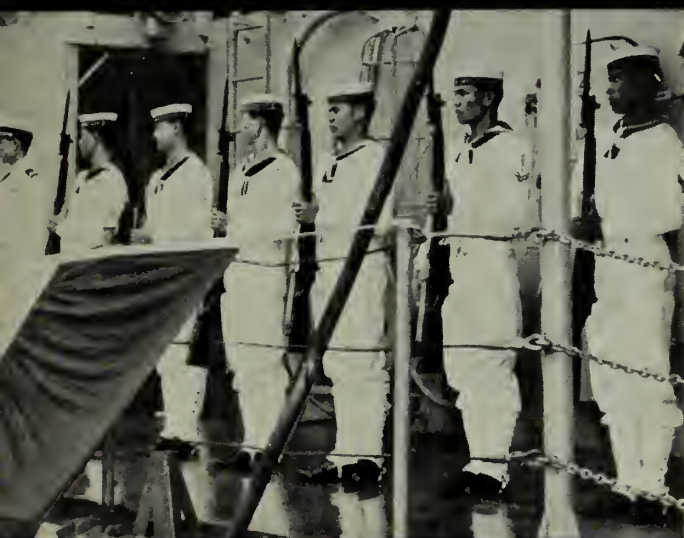
French sailors (above) pose with U. S. Navy men in front of French amphibious warship. At right, Spain's national flag is hoisted astern of *Almirante Garcia de los Reyes* at her commissioning into the Spanish fleet.



Royal Canadian sailors get a warm reception as they arrive aboard quarterdeck at Naval Receiving Station, Brooklyn (left), and British submarine sailors (right) are photographed together on a visit to U. S. ship.



Flag of Chile is raised over ship of that republic by crewmen as a U. S. sailor salutes.



Sailors of Royal Thai navy stand at attention on deck of escort destroyer *HTMS Pin Klao*.



Australian Navymen welcome a U. S. sailor as he boards warship *HMAS Tobruk* for visit.

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

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The Chief of Naval Personnel

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The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

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• **FRONT COVER: SOMETHING TO THINK ABOUT**—No matter how remote the world situation in the cold war era may seem at first thought, you and every Navyman have a part in it. The sailor on the cover, with something to think about, is Torpedaman's Mate First Class Charles E. Burk, USN.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.



The Cold War Era—

WHEN TALL-MASTED WOODEN ships slugged it out with each other in battles of broadsides and boarding parties, the sailors in those ships knew for sure they were fighting a war. So too did those Navymen who saw more recent action at places like Leyte Gulf, Okinawa, Normandy and Inchon.

If you're shooting at someone who is shooting back at you, the situation doesn't need any identifying label so far as you're concerned. It's war, and you know it. You also know that the main idea behind it is to take the offensive against the enemy's armed forces and fight like blazes until you win.

Although that's an oversimplification, it does help most of us to reduce the whole ugly business of a shooting war to terms we can understand.

The Cold War is something else again. It's been labeled for us since 1946, but it sometimes seems so different from the "usual" kind of war that it's difficult for most of us to reduce it to simple terms. The combat zones are often in men's minds—not on the map. The weapons may vary from olive branches one day to threats of all-out atomic war the next. Sometimes it almost seems as if "you can't tell the 'players' (or even where the 'playing field' is) without a score card"—and you can't find a score card either.

One of the main reasons for our confusion is probably the fact that not enough of us take the time and trouble to figure out what's going on and—let's face it—too many of us forget that the cold war is just as serious as any hot war has ever been.

Once you do stop to think about the cold war you realize the significance of that word "confusion," for it soon becomes clear that many of our opponent's actions are maneuvers carefully calculated to keep us off balance through the creation of confusion.

We can help turn these tactics into wasted effort by knowing what's behind them, but to do that we first have to know what the cold war is and what we're up against.

ACCORDING TO the dictionary, cold war is a situation—short of armed conflict—in which two nations or groups of nations attack one another through such weapons as *power politics, diplomatic maneuvers, economic strategy, propaganda and infiltration by fifth column activity.*



What's It All About?

Walter Lippmann, the political writer, is credited with coining the term shortly after World War II. Since then it has gained wide public acceptance as a name for the struggle between communism and freedom. It is still a useful term so long as we don't forget that the post-World War II version of the cold war and such shooting wars as the one in Korea are really both part of the same long hard fight.

There are several dates which might be called the beginning of the cold war. Some experts say it all started in 1848, when the Communist Manifesto was issued by Karl Marx and Friedrich Engels. (See page 6.) Others date it to 1917, when the Bolsheviks came to power by overthrowing the provisional democratic government established in Russia

after the downfall of the Czars. At any rate, it really got going full-blast after World War II, when the communists chose to ignore wartime agreements designed to protect the freedom of the small nations of the world by making satellites of countries like Hungary, Rumania, Czechoslovakia and Albania.

To the communist way of thinking their system is always at war with the non-communist world—regardless of whether or not there's any actual shooting going on—and regardless of whether or not anyone is fighting back. Peace and war are thus both forms of strife, and the communists are resolved to continue that strife until communism rules the world. Even their definition of "peaceful co-existence" follows this line of thinking, as witness this recent statement

by the Premier of the Soviet Union:

"Peaceful coexistence means continuation of the struggle between the two social systems—but by peaceful means, without war, without interference by one state in the internal affairs of another."

On the same subject, he has also said: "We consider it to be economic, political and ideological struggle, but not military. It will be a competition of the two systems in a peaceful field."

IN THEIR EFFORT TO WIN this struggle the communists are using every weapon they can get their hands on—psychological, technological, economic, military, political, diplomatic or what-have-you—and they are fighting us on every front. Thus, except for saying that the cold war is a



OFF DUTY Navy men around the world lend a hand to cold war victims such as Korean orphan shown here. Below: Navy men and Marines keep ready.



titanic struggle which we can't afford to lose, there's not much point in trying to confine it to a simple definition.

In the book, *Protracted Conflict: A New Look at Communist Strategy*, Dr. Robert Strausz-Hupe and his associates at the University of Pennsylvania's Foreign Policy Research Institute point out that:

"The current struggle for the mastery of the globe has been waged for five decades. We must reckon with the extension—the protraction—of the world conflict into the next century.

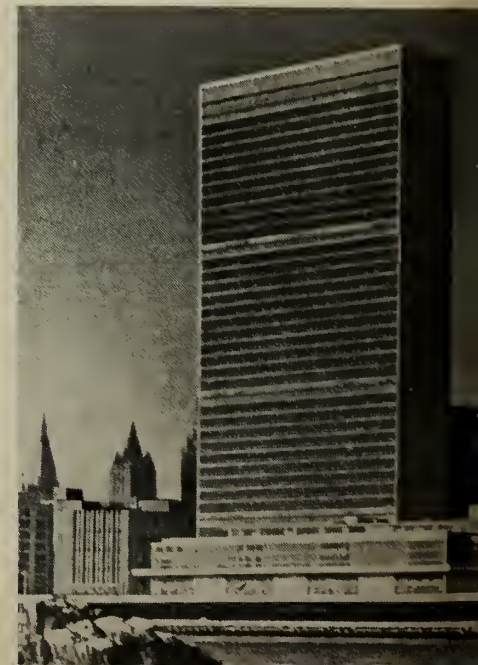
"In order to survive or win this conflict, strategies must be planned to the scale of decades, not years. An individual conflict should not be viewed as an isolated phenomenon but as an integral part of a multiple series of interrelated conflicts. One conflict triggers the other; there are no decisive defeats or victories except the last."

The book also makes it clear that the communists are following a regular doctrine in their conduct of the cold war. Here, in brief, is the way that doctrine is analyzed:

"Communism draws its vigor from a . . . theory of total conflict of indefinite duration between world political systems. Although the communist objective is total victory, its attainment does not necessarily follow upon that same kind of total military conflict which has characterized Western warfare in the twentieth century. . . .

"Characteristics of the doctrine of protracted conflict are: The total objective, the carefully controlled methods and the constant shifting of

THE UN means freedom and peace.



the battleground, weapons systems and operational tactics for the purpose of confusing the opponent, keeping him off balance and wearing down his resistance.

"For the communists, protracted conflict brackets all possible relationships between states and groups—political, economic and cultural."

Many of the communists' tactics in the Cold War are spelled out by the Chinese communist leader, Mao Tse-tung, in his book, *On the Protracted War*. Much of Mao's thinking is admittedly based on the ideas of the ancient Chinese strategist Sun Tzu, who said such things as these in a treatise written in about 500 B.C.:

"To fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting."

"All warfare is based on deception. Hence . . . when we are near, we must make the enemy believe that we are far away; when far away, we must make him believe that we are near."

"In all fighting, the direct method may be used for joining battle, but indirect methods will be needed to insure victory."

"Avoid the enemy when he is full of dash, and strike him when he withdraws exhausted."

"Make a noise in the east, but strike in the west."

Obviously, against opponents who use tactics like these, any confusion on our part is a serious matter. One of the major purposes of this issue is to point up the danger from that angle.

—Jerry Wolff.

UN BUILDING and the N. Y. skyline.



ON DUTY Navymen man stations to keep sharp lookout for developments. Aim is to help prevent 'hot spot' situation such as Korean conflict (below.)





LOWER AWAY—Communist sailors lower Russian ensign on warship's stern.

despair. What went wrong?

As a theory, communism is not new, by any means. Fundamentally, communism is the system of society in which property (especially real property and the means of production) is held in common—that is, by all members of the society and not by individuals.

In a limited sense, communism as a theory of government and social reform may be said to have begun with the Greeks of the Golden Age and more particularly with Plato who, in his *Republic*, described a society with community holding of property. The idea of community property was also strong in some religious groups such as the Jewish Essenes and certain early Christian communities. These religious opponents of private property maintained that property-holding was evil as being worldly and that God had created the world for the use of all mankind.

The concept of communism as a religious and social force continued to arise from time to time during the intervening years. Communistic settlements were known in ancient and medieval times, but the flowering of such groups occurred in the 19th century in the United States. A number of religious sects established communities in Harmony, Pa.; Zoar, Ohio; and Aurora, Ore.; and another group, which was often anti-religious and utopian is best represented by Brook Farm.

There is obviously little connection between these somewhat idealistic and ineffective movements and the menace we know of today under the name of communism. What happened?

WITH KARL MARX, the communist tradition underwent a drastic change. From an ideal it became a method and a technique for the seizure of power. It lost most of its human aspects and became a revolutionary technique based upon force. The later Russian leaders of the Revolution—Lenin and Stalin—ruthlessly applied what was, to Marx, merely textbook theory.

(This might be as good a point as any to make the distinction between what today distinguishes the socialists from the Marxists.

(The socialists believe — roughly

EVERYBODY'S HEARD OF THE Communist Manifesto, but the chances are that you, like most of us, haven't read it—or remember it very vaguely from an old history textbook. It's more than a century old, dating back to 1848, and this is its opening paragraph:

"A spectre is haunting Europe—a spectre of Communism. All the powers of old Europe have entered into a holy alliance to exorcise this spectre; Pope and Czar, Metternich and Guizot, French radicals and German police spies."

It goes on to say—in a very clever way—something that communists have used, in the decades since, to gain increasing power in countries all over the world.

"Where is the party in opposition that has not been decried as communistic by its opponents in power? Where the opposition that has not hurled back the branding reproach of Communism, against the more advanced opposition parties, as well as against its reactionary adversaries?"

Despite the old-fashioned language, these paragraphs have a familiar sound. Now, let's move a little more than a century forward in history. We quote the *N. Y. Times*, of 22 Nov 1959:

"Already, 2,300,000 East Germans, over one in every nine of the total population, have fled to the West since 1949. Most escaped through Berlin, and they are still going, currently at the rate of 12,000 a month.

"Even those who remain are not reliably settled. A Western visitor who recently toured East Germany was told again and again by people there: 'I'm staying for the time being. I can always run to West Berlin if the Communists get too tough.'"

The pictures that you get from these quotations demonstrate that the communists have gained a great deal in influence and power in the intervening years. What is the nature of communist theory? It's worth thinking about.

SOME 60 OR 70 YEARS after Karl Marx and Friedrich Engels wrote their Manifesto, the Communist Party theoreticians had an opportunity, with the overthrow of the Czarist regime in Russia, to put into practice the plans they had been formulating for so long.

In 1917, when the Bolshevik (Communist) Party eventually seized control of the Russian government, many liberals in many parts of the world approved. The millennium was here! Now men would be able to put into practice, on a large scale, a dream which men had cherished for more than 2000 years. For once, a government was being created which would devote its energies primarily to the benefit of the workers—and taxpayers.

As we know today, it didn't work out that way. In the Manifesto, as quoted, there was angry hope; in the newspaper report, disillusion and

IS COMMUNISM?

speaking—that the abolition of private property is desirable, thus leading to equality and economic abundance, but that it should be brought about through the peaceful political techniques guaranteed by the democratic state. It should not be brought about by force lest violence taint the men who use it and corrupt the ultimate goal.

(Marxist communists, on the other hand, emphasize the inevitable need of force, and discard the democratic techniques of political persuasion and democratic liberties. For them, force and dictatorship are inevitable, even if temporary, instruments for the realization of the ideal world they hope ultimately to achieve.)

According to Marx, the political beliefs of a given social system is determined by the property-owning, or ruling, class. The state, or government, is an institution created solely for the preservation of these beliefs and for the protection of the ruling class.

No ruling class, Marx says, ever abandons its special interests or gives up its power without a struggle. With the state in the hands of the capitalist class, Marxist theory labeled it as an instrument of oppression intended to maintain the conditions which exist. Its nature cannot be changed, nor can the public policy change so that there may be a peaceful redistribution of wealth according to the wishes of the majority.

Consequently, the Marxist goes on to say, the only means at the disposal of the working classes is the use of force, the destruction of the state, and the establishment of a temporary dictatorship of the proletariat, or workers.

"The Communists disdain," wrote Marx, "to conceal their aims and views. They openly declare that their ends (socialization of the means of production) can be accomplished only by the forcible overthrow of all existing social conditions." This, stated very briefly, is the Marxian theory of the state.

This remains the doctrine of today's communist leaders who continue to believe that the capitalist system of the Western world is doomed to inevitable defeat and collapse. It is part and parcel of the faith of any good communist today.

Interestingly enough, Marx and his early followers were convinced that revolution would take place in the advanced capitalistic countries in which the laws of economic development had been in operation a long time. France and Germany, he thought, as well as England, satisfied the conditions that should bring about a revolution. Also, both Marx and Engels thought always in terms of world socialism and not in terms of specific national revolutions.

LENIN PUT the Marxian theoretical blueprint into practice and adapted it to the revolutionary movement in Russia. He concentrated on the need to overthrow at all costs the Czarist regime and to establish a proletarian dictatorship in Russia. By so doing, he distorted considerably the original tenets of Marxism.

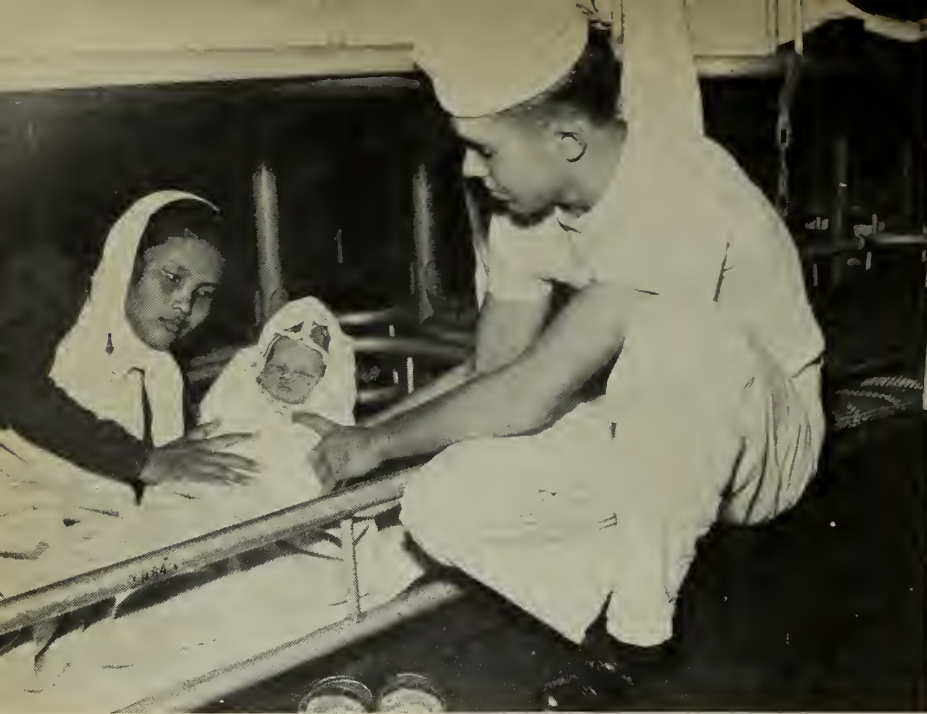
Lenin was inclined to ignore Marx's position (which retained some

of the 18th century liberal faith in the individual's ability to comprehend his own life and circumstances). Lenin assumed from the very beginning the need of leadership and organization, and the inability of the masses to comprehend the "proper" social consciousness. It was, he was convinced, necessary for the Communist Party to educate the masses; to infuse them with a revolutionary spirit and teach them class consciousness; to lead them toward the revolution and, finally, to educate them in socialism after the revolution had taken place.

According to this concept, the party had to be composed of gifted individuals who understood the future better than the rest of the people. The leaders of the party were to be particularly endowed with the scientific knowledge and foresight that the common man lacked. Leadership could not come from the ranks of the working class,

THEY KNOW—Nationalist Chinese families flee hot spot in communist cold war.





PASSAGE TO FREEDOM—Viet-Nameese mother fleeing communism is patient.

but from the middle-class intellectuals trained in Marxian politics.

The rank and file of the party would be united with its leaders by bonds of allegiance and common action. They would be prepared to take any kind of action, legal or illegal, at a moment's notice. Orders for any kind of action would come from the top. The need for illegal activity early educated the party members to the concept of violence.

Lenin considered the revolution in 1917 in a backward country such as Russia as merely a tactical victory against the world-wide nature of 20th century capitalism. He did not consider it to be any more than a preliminary step which would ultimately lead to the collapse of capitalism—at least in Western Europe—and then to its ultimate collapse all over the world. He was never convinced that Russia, in itself, could develop into a self-sufficient socialist community, or that socialism could develop in Russia alone. The establishment of the Third International, in 1919, of the communist parties of the world, had as a primary purpose the organization of world-wide revolutionary activity.

Although Lenin was successful in bringing about a revolution in Russia, he hoped that his victory there would bring about the victory of socialism in the West as he believed that without such a development, the chances of socialism being successful in Russia would be poor.

When Stalin reached power, he changed all this.

THE VIEWPOINTS of Marx and Lenin, discussed above, form the basic premises of Stalinist beliefs. However, with the passage of time, these premises have become more and more blurred.

Stalin succeeded Lenin at a time when the revolutionary spirit was at its lowest. Long years of conflict, civil war and economic hardships had disillusioned many revolutionary leaders and undermined the morale of the rank and file of the party. The times no longer called for the revolutionary, but for the administrator and the organizer.

A party organizer, with the qualities and limitations of an administrator, Stalin was able to succeed Lenin because of his administrative functions and position within the party. He set himself the task of reconstructing the economic and political institutions of Russia without much concern for the blueprint of world-wide socialism. Neither did he share the faith of the other party leaders in the possibility of a revolution in the West. In fact, Stalin had a deep distrust and enmity toward the Western world about which, in contrast to the other Soviet leaders, he knew little and understood less.

Stalin decided to go ahead in Russia without waiting for help from the Western world and without being very much concerned with communist revolutions in Western Eur-

ope. He was later to consider world revolution simply as an instrument of Soviet national aims. He was neither for nor against it, as an idea. He was against it when the conditions were not favorable to the Soviet Union; favored it when it might have furthered the cause of Soviet power.

Meanwhile, he concentrated his efforts—and those of all Russia—on the job of building “socialism” in one country—Russia.

Socialism in this one country meant that the Russian people had to build a strong, industrialized state capable of defending itself against all outsiders. They had to catch up to and, if possible, outstrip the production of capitalistic countries in a relatively short time.

The limitation of aims also had important repercussions upon the internal policies of the Communist Party. It meant tremendous effort in industrial production and growth that could not be achieved without rigid controls by the state and without enormous and probably unnecessary human sacrifice.

More important, it could not be achieved without rigid political control that tended not only to wipe out dissent and opposition, but also to give the party the power to control thought.

Such is the general, more or less formal textbook description of the nature of communism. As it stands, you might say, there appears to be little danger to our way of life. True, the communist form of government is the direct opposite of ours, but haven't we managed for many years to live in friendship with many other types of government? What's the difference? Why should communism be considered a special threat to us?

This is the difference: To exist, communism as created by Marx, Lenin and Stalin, must be a dictatorship. Even if they wanted it, the democratic process just wouldn't work. The communist leaders have always been convinced that, to make communism effective, it must operate throughout the whole world. As the United States is the leader of the democratic nations, this country is considered to be the greatest threat to the existence of the communistic state. As long as we exist, they believe, communism will not be safe.

THIS IS COMMUNIST THEORY. How does it apply to us? How does it affect the U. S. Navy and your job

in the Navy today? No one is in a better position to discuss this subject than the Chief of Naval Operations, ADM Arleigh Burke, usn. This is what he has to say:

As a people, we have been very clearly informed by those who control the Communist Bloc that we are their enemy, that we will be their victim, and that they intend to eradicate our way of life. For them, a campaign of attrition against us is the order of the day, and this has been going on for over 40 years.

When it comes to understanding force, the Soviets are realists. Since they can't conduct a general nuclear war and survive themselves, they choose other ways, other means of achieving their one objective. When we appear militarily weak, lacking in unity and resolve, and preoccupied with our own affairs, they choose limited wars.

On a day-to-day basis they choose and they wage to the fullest, cold war. They wage it in every way they can think of, psychologically, economically, politically and always with the threat of force, implied or expressed. They operate in all these areas at once and continuously. They know you cannot keep losing and expect to win a war, a cold war or any other kind of war. Each time we accept a defeat, no matter how small the issue, we lose a little of our strength, our will, our moral stamina.

The Soviets know this and they know it well. That is why they have chosen a war of attrition. That's what the cold war is. That's the aim of each attempt at local aggression. It is a war to chip away at the Free World.

Every day of the cold war, in every campaign of limited war, the Soviets keep the issues seemingly small and seemingly unimportant. The basic, continuing issue is big, for the Soviet objective involves the whole world. But they try their best to make the issues appear small, too small, too minor to be worth the attention of busy people.

Nevertheless, the news all too often these days centers around an international crisis, or perhaps several of them at once. This is something we have been facing for more than a decade. Too many are inclined to think of them simply as a succession of crises. They are more than just this. They are a whole string of crises and they all go to



CHURCH CALL—Hungarian refugees worship again while sailing to U. S.

make up one big continuing crisis.

The big crisis is the one forced upon us by the relentless drive and aggressions of international communism. It poses the major threat to the people of the United States and the Free World in the present era, and it marks a very significant crossroad in the history of civilization.

This threat consists of the aggressive intent and efforts of international communism to attain a Moscow-dominated, communist-controlled world.

Although the Communist objective never changes, the tactics used and actions taken display the highest flexibility, a flexibility that is enhanced by strong disdain for the moral and legal ethics of honest men everywhere. This flexibility allows the Soviets to create situations, issue ultimatums, and announce deadlines. Then, when we stand firm, the Soviets change their tack. Flexibility enables them to keep control of the situations they create.

The communist program for expansion and consolidation is not wholly nor even principally, military. Although it has strong military aspects, it is not limited to the military field. It involves the whole gamut of international actions.

The Soviets practice a doctrine of maximum gain at carefully appraised risk, but they will never willfully risk the destiny of communism. To them, such risk must be avoided.

To gain their objective, they use

every tool—political, economic, psychological, subversive and, if need be, military.

The Soviets are well prepared for the use of force but they far prefer to gain their objectives through the threat of force and the prestige of military strength.

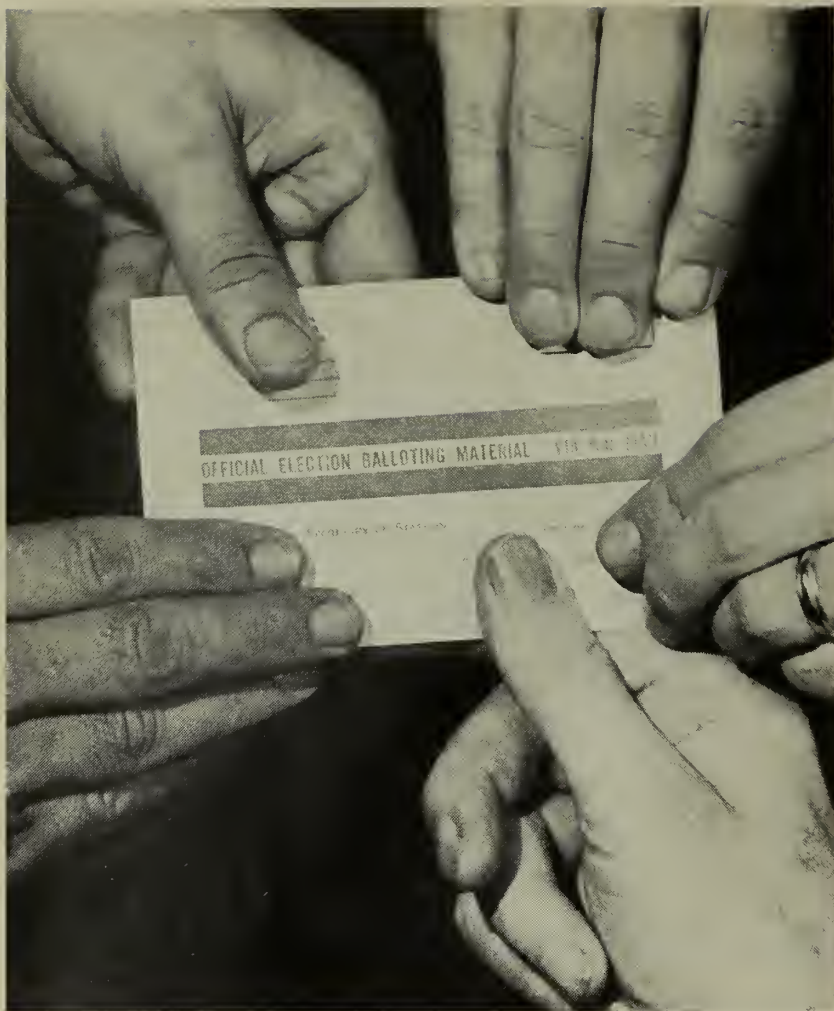
Soviet dictatorship provides complete police-state controls. Ruthlessly they dispose their entire resources—human, economic, political, scientific and military—toward pursuit of their one basic objective, world domination.

Through the dedication of relatively small, well disciplined groups, the Soviet capability for sabotage, espionage, subversion and political agitation is world wide.

The conflict between the Free World and communism will continue because the communists will not give up their expansionist aims. That Soviet aggressive program, the cold war, will remain the normal situation. The Soviets will wage it to their utmost.

They may instigate limited wars whenever they think they spot a weakness in the Free World, especially if Western resolve, military strength or unity appear weak. They will do this in order to make significant gains, with minimum risk of general war. If they need an incident, they will create one—with one thought always in mind, their prime objective. That is world domination.

This is the crisis we face.



WHAT

ONE OF THE SLICKEST—and oldest—communist propaganda gimmicks is the trick of playing up the conflict between *communism* and *capitalism* when the big issue is really *communism vs democracy*.

The communist propagandists are experts. They know a frontal assault on democracy and the freedom it represents wouldn't get them very far in a war of ideas, so they rely on a roundabout attack. They paint a picture of capitalism that looks like a caricature Karl Marx might have drawn a hundred years ago, then try to sell their system as the only one which can save the downtrodden masses from the monster.

Even in the communists' homeland the appeal of democracy is so strong that concessions have to be made to the people's yearning for a voice in the way their nation is run. In an effort to appease that yearning, the dictatorship of the proletariat grants the people such tokens of democracy as "elections," a constitution and a communist version of "representative" government.

In the United States (and many other nations of the non-communist world) democracy is not just a token affair—it's a dynamic philosophy that really works in everyday use.





S DEMOCRACY?

In fact, most of the time it works so well that a lot of us don't give it much thought.

OF COURSE, we know we've got a government of the people, freedom of speech, freedom of religion and all that and a lot more. However, many of us take the same attitude toward democracy that we sometimes take toward an important landmark when we live near it. We're so used to having it around that we don't bother to stop to look at it.

Whether we realize it or not, democracy is much more than a form of government. The ideas on which it is based—such as equality and respect for the rights of the individual—affect not only our political beliefs, but also our social and economic attitudes and even our own personal notions of right and wrong.

At the heart of modern democracy is the theory that each human being—simply because he is a human being—is an important person, entitled to as much freedom as possible. To make sure he gets his share of freedom, he is guaranteed certain rights, which cannot lawfully be taken from him unless he violates the rights of others. And, regardless

of his race, religion, wealth or social position, he is guaranteed an equal footing with his fellow man insofar as the law and the running of the government are concerned.

Most of us learned about these aspects of democracy when we studied the Constitution and the Bill of Rights in school. Perhaps because of that, some of us tend to think of democracy as some hidebound, dry-as-dust set of rules made up in the long distant past and handed down through the centuries in unaltered and unalterable form. It's not. Instead, democracy is a living and flexible idea which, by its very nature, can never become old-fashioned. Because it gives the people of each new generation the authority to run things for themselves, democracy can be adjusted with the changing times to meet new needs and conditions as they arise.

THIS ADAPTABILITY—and the sort of perpetual newness which it permits—has made democracy the success it is today, and it has also made democracy work for other people in other times and places.

Ancient Greece is generally considered the birthplace of the democratic idea. However, the forms and

institutions of early democracy were as different from those of modern democracy as ancient ideas of communism were from present-day versions of that philosophy. (See page 6).

In such Greek city-states as Athens the "citizens" governed directly through popular assemblies or elected representative councils. But the citizens (people born in the state) were actually a minority of the population—a factor which made the system more aristocratic than democratic.

The Roman Republic of ancient times contributed two important ideas to the theory of democracy—one that government was based on the consent of the governed, and the other that justice was to be administered impartially and without class discrimination, according to the prevailing law.

After the decline of Rome, little more was seen of democracy in practical politics until about the 1600s, when parliamentary government began to come to the fore in England. Meanwhile, John Locke and other political philosophers were beginning to advocate the democratic idea in their writings.

In America, when the break with



FLAG REPRESENTS both the nation and the democratic idea. Below: Protection of religious and other freedoms is guaranteed in U. S. by Bill of Rights.

England came, the people did not consciously set out at first to establish any particular social or political system. In fact, we had been at war with England for more than a year before the American cause was officially committed to independence and the democratic idea through the adoption of the Declaration of In-

dependence. Written nearly 200 years ago, it sounds a call to freedom which will always be timely. Remember this?

"We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are

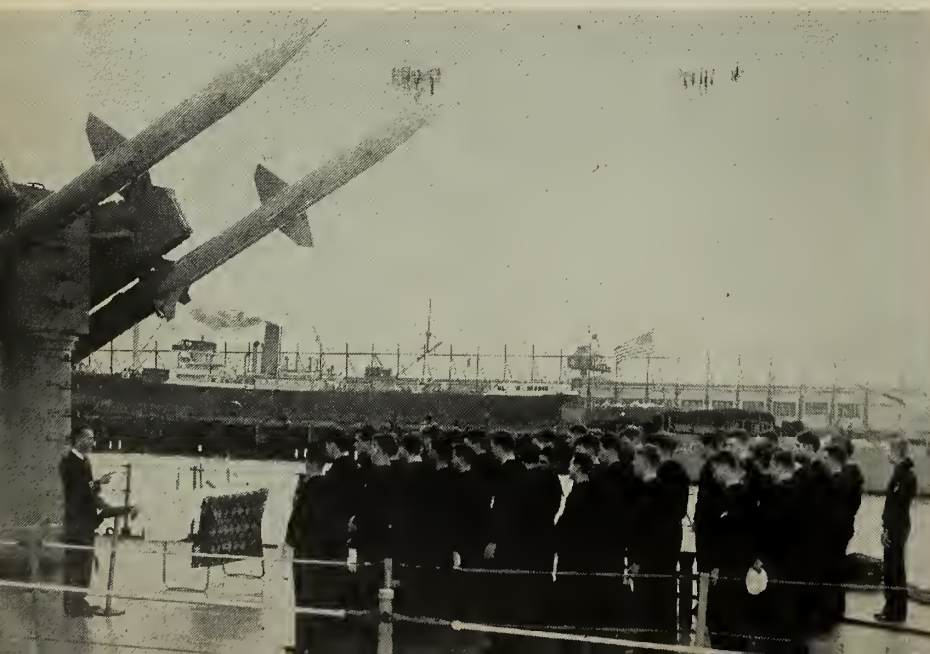


Navyman exercises his freedom.

Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed. That whenever any form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness.

"Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shown, that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same object, evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security."

THE REPUBLICAN form of government and democratic social system that the United States has been building ever since we won our in-





U. S. created model of democracy.

dependence are examples of practical democracy which will always help to stir the souls of oppressed people with a yearning for individual and national freedom—if our generation and those who follow keep democracy moving forward.

We have already come a considerable distance. For instance, we have greatly extended the right to vote. We have kept the individual from being "lost in the crowd" while our population and area have been growing by leaps and bounds. And, we have set up counterbalances and controls which would make it impossible for capitalism to become the ruthless monster which Karl Marx thought he foresaw.

In spite of these and many other advances democracy has made, it still isn't perfect. In fact, it is extremely doubtful that a perfect form of government will ever be developed—and even if it were—it would probably not be perfect for more than a short moment in history. However, democracy has the dynamic quality of adjusting itself to changing conditions. It is not rigid, but neither is it loose. It is flexible. And it is the best system yet conceived by the mind of man for letting men choose the course they want in their eternal search for perfection. —Jerry Wolff.



KEY MAN in a democratic form of government is the individual. As new generations come and go, they plot the course and the future of democracy.





SIGNS OF THE TIMES—People of Viet-Nam welcome the Navy to Saigon. Below: UN soldiers view red propaganda slogan during Korean war.



NAVYMEN OF TRANSPORT SHIP welcome refugees from communism in Viet-Nam (left). Rt: Spain salutes Sixth Fleet.



ON THE

• "We want to reach agreement with the strong and thereby reach agreement with all countries on the abolition of the cold war."

• "We will bury you."

• "The Soviet people want to live in friendship with the American people."

• "We could raze all our potential enemies off the face of the earth . . . We are ready to sink all this in the sea in the interests of insuring peace on earth if other countries will follow our example."

Do you believe these statements? Which ones are sincere? Who said them and why? The quotations are all part of communist psychological cold warfare.

Under the guise of peace and friendship, the communists are waging a continuing battle against the free world. Their actions are not always consistent with their statements. They continue to speak of peace in one breath and threaten war in the next.

WHY? What's the point of these "somewhat contradictory" statements? What do the communists hope to gain by making them?

It's just another phase of the *psychological* cold war which, in turn, is just another part of the cold war. It is war just as grim and ruthless as a shooting war but one in which bloodshed is not employed—as a rule.

Psychological cold war, as most



PSYCHOLOGICAL FRONT

of you know it, is painless—at first. It's easy to digest because it's prescribed and administered by some of the most skilled men in the business. Sometimes it's disguised so cleverly that you don't realize you have swallowed the pill.

All of us have been subjected to this modern weapon of cold war. And some of us have reacted as the communists have intended—to a certain extent.

Words are the primary weapon in this type of war. They are designed to capture the minds of men. It has been said (maybe by a PIO) that public information personnel are on the front lines in this phase of the cold war and the commanding officers of our Navy ships are really in reserve, backing up the line, so to speak.

"Psychological cold warfare" and "psychological warfare" differ to some extent in meaning and purpose. The latter is primarily directed toward servicemen in battle. This is done by radio (Tokyo Rose and Axis Sally during World War II were good examples of this), leaflets spread by air to troops which remind the troops of home and often times suggest their surrender, and loud speakers on the battlefield that suggest similar ideas.

In Korea, soldiers of the free world were "brainwashed" in communist prison camps. Even this is considered psychological warfare. Under extreme conditions such as those in a

prison camp, men can experience a complete reversal of belief. They might be convinced, for example, that A follows B in the alphabet or that black is actually white.

But cold warfare is different. It is designed to freeze and not burn. Its victims are not only fighting men, but everyone — men, women and children.

BEFORE WE BEGIN to discuss how this type of cold warfare is used, let's look at the communist objectives. If we know what they hope to gain, it is easier for us to fight them.

Here's what the communist strategists hope to accomplish. They want to:

- Develop frustration, confusion, pessimism, guilt, fear, defeatism and a sense of hopelessness in the minds of political leaders, intellectuals and workers of non-communist societies.

- Separate non-communists into many competing and mutually hostile groups. (Communists almost always work in minority groups.)

- Create and stimulate a sense of fear and anxiety in the minds of their enemies. The dangers of nuclear war, physical terror, or professional social and human ruin are common grounds on which these fears are based.

- Instill a conviction that, under "capitalism" there can be little progress, and the real future of the world is under "communism."

- Make non-communists believe

that communism is the answer to all problems and troubles, and that it will ultimately dominate the earth.

Over-all, the communists hope to destroy our will to resist, to stop us from making new friends and allies in unfriendly areas, and to drive a wedge between Allied governments and their citizens.

TODAY, as in wartime, psychological warfare is funneled into many channels. One is diplomacy.

Hardly a day goes by that the Communist Bloc governments do not issue statements which imply peaceful intentions.

On the surface, their ideas sound sincere. They are usually palatable and often suggest sweeping changes such as the abolishment of nuclear weapons or the ending of war for all times. These suggestions sound good, but when the communists are pinned down to brass tacks, the negotiations usually fall through.

By suggesting these negotiations, they hope to make the citizens of the free world relax a little. Even when it is quite obvious that their actions are not designed to further peace, they continually say they are peace-loving people and are doing everything possible to bring about a total peace for all people.

Another way in which they keep us off balance is to say one thing and then, some time later, completely reverse their field.

This tactic of the cold war was

OLD AND YOUNG—In one trouble spot an old woman awaits evacuation. In another a girl smiles at journey's end.





DISPLAY OF FRIENDSHIP welcomes a Navyman to Philippine village where he was honored by local Moslem leader.

again demonstrated quite recently. On 23 Nov 1959, the Associated Press carried a story which quoted *Pravda* as saying that the U. S. Secretary of State Christian A. Herter was "much closer to the understanding of peaceful coexistence than his predecessors." They praised him.

The *Pravda* article went on to say that Herter "shows that some American statesmen are beginning to denounce the threadbare dogmas of the cold war and 'positions-of-strength' policy.

"As many other champions of the bourgeois system, he [Christian Herter] tries sometimes to doubt the Soviet Union's sincere desire for peace and international cooperation."

Just three days later, however, the Soviet newspaper *Izvestia* published an article which graded the U. S. Secretary of State as "poor" on the subject of foreign policy.

"PEACEFUL" COMPETITION is one of the best psychological weapons used in the cold war by the communists.

Sputnik has played a major role in this venture. When the Russian earth satellite became the first man-made object to orbit the earth, the entire world was stunned. Not that we didn't half-expect it to happen, but it was a whale of a scientific achievement.

It was a giant step into space, but what else did it mean? With this

much power, could they also direct a guided missile any place on earth? Could they perhaps set up the first space station which could be used as a missile station? Just what could this mean to the free world? These were some of the unanswered questions that put the free world on edge.

The earth satellite is only one phase of promoting the psychological weapon of peaceful competition. Industrial production is another. Russia is striving to surpass the U. S. in this area, and has given much publicity to this effort.

To win this battle of production would be of great propaganda value. Even now, Russia tells the world how they are gaining on us. "Facts" and figures, all highly polished and arranged in the most advantageous manner, are common communist weapons. These are designed to suggest that a shift in power is under-way. All of the figures may not necessarily be true, but what is truth when they are making a point?

The communists' methods are most successful in countries where there is already unrest or the form of government is new. The communist diplomats are old hands at the manipulation of inexperienced leaders.

THE COMMUNISTS treat foreign affairs as a primary target for psychological effort. Their aim is to rally their friends, embarrass their enemies, and win as many new friends as possible.

The United States and other free world countries have been branded as warmongers, aggressors, and enemies of peace — over and over again — by the communists. We know these statements are not true.

But what about persons in other countries where, perhaps, there have been "unfortunate" incidents? What do they think of these statements?

The routine from this point on might include protest marches, hostile newspaper articles, and other acts designed to make the United States abandon our overseas interests, affiliations and business connections.

But diplomacy is only one channel of an over-all psychological effort. Others are the printed word (newspapers, books and magazines) and the spoken word (radio and television).

The communists are showing a keen interest in the Near and Middle East. The printed word is playing a big part in their campaign to win the support of this part of the world.

In 1957, for example, 150 per cent more books were published for the Near and Middle East than in 1956. The number of pamphlets for that area increased 400 per cent.

ANOTHER VERY EFFECTIVE way to reach great masses of people easily and quickly is radio. The communists use this tool widely to spread their ideas. The external broadcasts

of the Soviet Union, for example, date back to 1933 when German-language broadcasts in long-wave were initiated by communist Radio Moscow.

In 1942, when the Voice of America began broadcasts, the Soviet Union was already using 10 short wave transmitters in Moscow and Kuibyshev to broadcast about 400 hours per week in 17 foreign languages. Today, the Soviet international service is a vast operation with an extensive transmitter network which spreads from East Germany to Siberia.

In recent years the Moscow and Peking radios, and those of the satellite countries, have improved the entertainment and attraction of their programs without diminishing their propaganda value.

Television is not yet useful for long-range broadcasting, but it is an instrument in psychological cold warfare, aimed primarily at their own people.

Monies are also used to influence both communists and non-communists.

Besides the feature films produced by the communists, there are hundreds that can be classified as newsreels, scientific reports and culture movies. These, too, carry their share of the message.

STILL ANOTHER WAY in which psychological cold warfare is waged against us is through international front organizations.

Here are a few of the most active ones: The World Peace Council (WPC), World Federation of Trade Unions (WFTU), Afro-Asian People's Solidarity Council, World Federation of Democratic Youth (WFDY), International Union of Students (IUS), Women's International Democratic Federation (WIDF), International Organization of Journalists (IOJ), The International Association of Democratic Lawyers (LADL), World Federation of Teachers' Unions (FISE), World Federation of Scientific Workers (WFSW), World Congress of Doctors (WCD), and International Federation of Resistance Fighters (FIR).

Besides these groups, there are many other organizations in our own country and in other free nations which are friendly with the communists.

You may have noticed as you glanced over that list, how many of

the organizations were "democratic" groups. These groups also advocate "peace."

Words that mean one thing to us, mean something quite different when used by the communists.

There are many examples of this: In Hungary a few years ago, the communists were not aggressors. They were liberators. It was a police action, and like all good policemen when there is a riot, they stopped it. They are always liberators, never aggressors. Or, so they want us to believe.

Korea was another example. The United States sent troops to join the fight. Russia did not. They supplied weapons and maybe instructors, but they would never interfere in a country's internal problems. Never. We were the aggressors; they were furthering the cause of peace—they said.

Peaceful coexistence is another well known and often used phrase. To most of us in the United States it means to live side-by-side peacefully, each with his own form of government.

Such is not the case from the communist viewpoint. In communist literature, the phrase is defined as a tactic or strategem to gain time, deploy forces, and undermine enemy vigilance. Symbols such as the dove of peace and the olive branch are also used over and over again.

The communists have been attacking the United States for many years. Have their methods been effective? Test yourself on these questions.

- Do you think the communist form of government is better than ours?

- Do you think the communists can beat us in a shooting war?

- Do you think the communist educational system is more ideal than ours? (Would you like to have your children go to school under this system?)

- Do you think the communists sincerely want peaceful coexistence, as we know it?

- Do you think the communists would abide by an agreement to destroy nuclear weapons in a disarmament effort, without controls?

- Do you think the communists want to abolish war and devote all their effort to friendly competition?

- Do you think communism would be the answer to most world problems?

It's a good idea to have a questioning mind. And it's always possible to learn something (good or bad) from the other fellow.

But if you answered yes to any of these questions, it may be that the communists have been getting through to you. You may be a victim of communist psychological cold warfare.—Erwin A. Sharp, JO1, USN.

USS RANGER (CVA 61) spells important Navy role in psychological cold war.



SEA POWER IN THE COLD

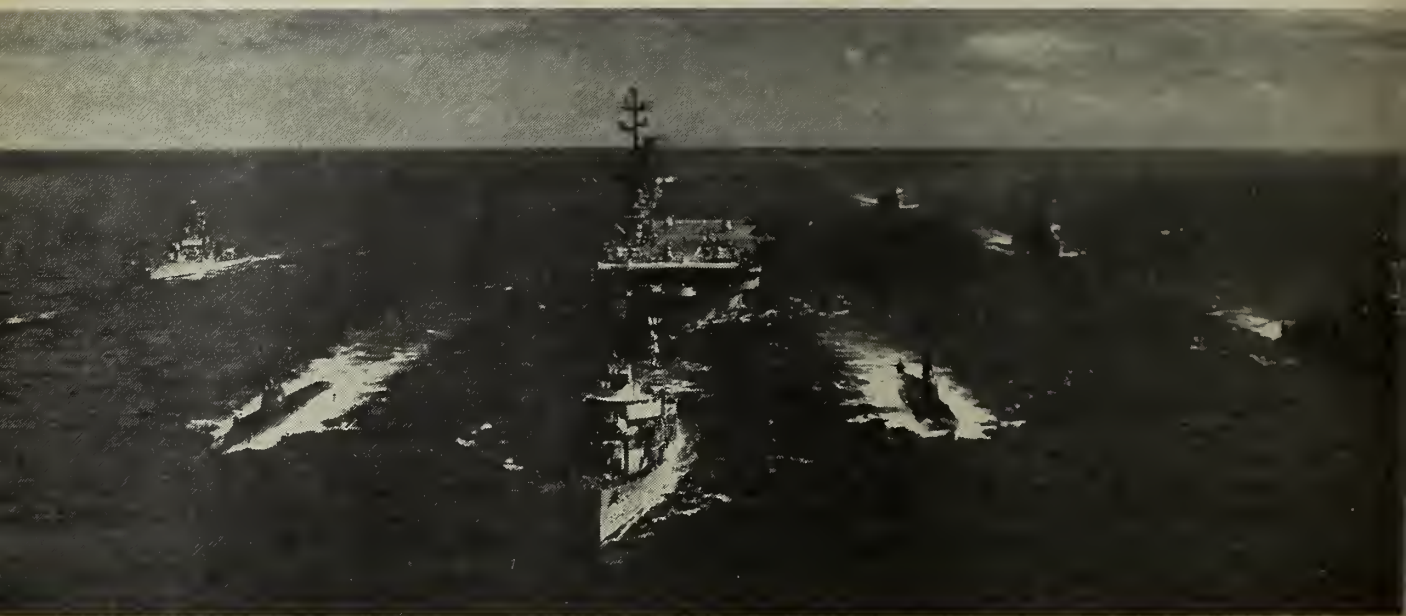
THIS WEEK, as they have day in and day out for years, ships and planes of the Sixth Fleet joined other NATO nation forces in daily training ops in the Med. On the other side of the world, a watchful Seventh Fleet continued its ceaseless patrol of the Formosa Strait. PacFleet submarines from Pearl Harbor and San Diego patrolled in the Western Pacific. Antisubmarine defense forces in both the Atlantic and Pacific worked around the clock trying out new

Mugu and Wallops Island, missiles roared off launching pads as the United States sought to solve the mysteries of space.

What was behind all of this activity, involving thousands of men, and billions of dollars worth of hardware?

Well, in case there remains anyone unaware of the fact in 1960—in this 15th year of what was supposed to be the latest peacetime era—the U. S. and the entire free world

Elsewhere in this issue the techniques and aims of psychological cold war as practiced by the communist block on a global scale are discussed at length. One of the chief ideas trumpeted over and over again by their spokesmen is that communism will eventually “spread throughout the world, through more or less peaceful evolution, and there’s nothing anyone can do about it.” It won’t be necessary to wage war to attain their goal, they claim, since



weapons and training in new techniques.

On ship and plane barrier patrols, radarscopes endlessly scanned the skies. Air Force planes at bases in the U. S., in England, Spain, North Africa, Japan the Philippines practiced scrambles in dead seriousness, always aware that the next alert might be the real thing. At just as many bases, the Army was busy streamlining formations and tactics, and working with a variety of modern weapons. At Camp Pendleton, Camp LeJeune, Kaneohe Bay and Okinawa; at Cherry Point and Quantico and in Japan the Marines practiced the new concept of vertical envelopment, and their mobile divisions and organic air wings were poised, as always, to carry out their traditional fireman's role. At Alamo-gordo, at Cape Canaveral, at Point

are locked in tough political, economic, social, psychological and, in some cases, military struggle with a powerful and cunning adversary—the ideology known as communism.

It's a struggle which is being waged in many widely separated areas, and in a variety of ways. It has come to be called the cold war.

One of the major factors which has affected, and will continue to affect, the outcome is the balance of military power possessed by the two camps.

LET'S TAKE A LOOK at what our service chiefs call our “military posture,” discuss the communist military makeup, sum up some of what has gone before and where we stand as of now, and attempt a bit of speculation about what the foreseeable future may bring.

in the end they will “bury us” through other means. Therefore, they proclaim, there is no longer any necessity for maintaining large military forces. Disarmament has become the key word in their vocabulary.

Why this sudden clamor from the communists for world disarmament? Why the current emphasis on a thaw in the cold war?

It may easily be that for all their professed willingness to let time and circumstance take care of the spread of their beliefs, this current crop of communists is more impatient to see the world under the sway of their influence than they pretend to be.

It is certainly a fact that the military might of the U. S. and its allies has combined to frustrate and defeat communist aims in the past. Obviously they deem it highly important somehow to reduce the free

WAR ERA

world's military strength, so that the other weapons in their arsenal will work more effectively.

IF THIS WERE to be merely a discussion of how much firepower each side possesses, it could be easily disposed of. After all, it doesn't take very long to note that the communist block, with its huge manpower pool, has an estimated million more men under arms than do the U. S. and her allies. Neither does it require a great deal of time to record frankly the fact that in long-range missile production and performance the communists (Soviet Russia) are making great progress.

If these were the only facts to be taken into consideration, it would be easy to begin believing what some gloom peddlers would have you believe—that the days of U. S. ascendancy are numbered, and that sooner or later the free world nations will fall under communist control.

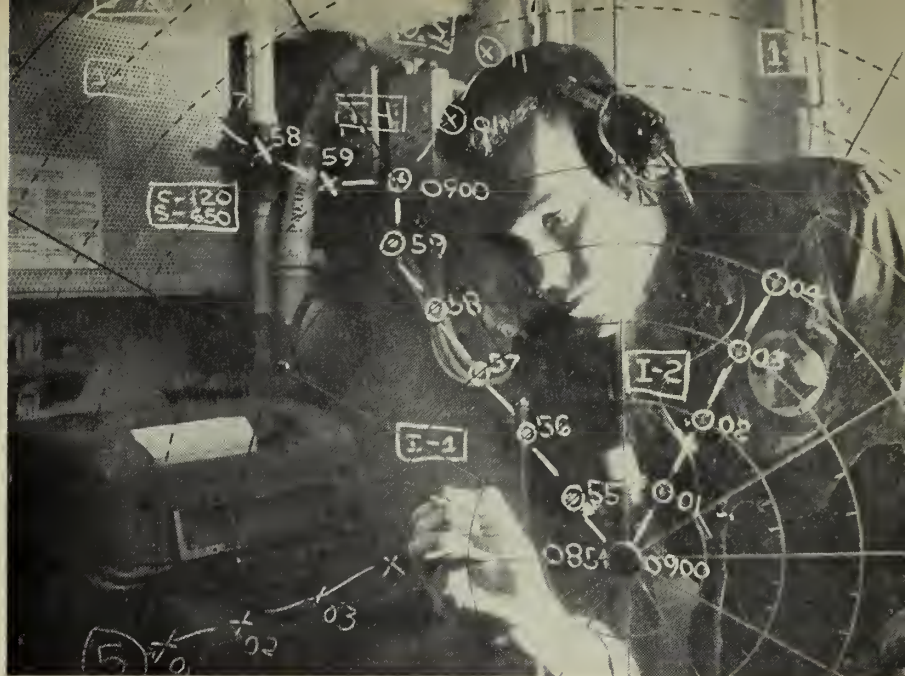
Fortunately, however, the balance of military power isn't and won't be decided on the basis of numbers alone.

Two main factors combine to affect the opposing forces' military makeup, and to make them so strikingly dissimilar—the missions each is designed to perform, and the respective economies involved.

During the years the late Joseph Stalin held the reins of power in the Soviet Union, he was content to present a sort of truculent, don't-tread-on-me-in-my-bailiwick-or-I'll-murder-ya' attitude to the world. The emphasis was mostly on defense, with massive ground forces ideally suited to utilize Russia's vast terrain and brutal weather to wear down an invader through a battle of attrition. Thus during most of that period the Soviet navy and air force were comparatively minor league.

Stalin's death brought about a sharp shift in Soviet policy. In the struggle for power which followed, men who favored an aggressive spread of the communist doctrine emerged on top.

There followed a thorough overhaul of Soviet military forces. Much more emphasis was placed on developing offensive weapons, less on purely defensive ones. Soviet military planners recognized that a fu-



CHECKING UP—Navy men in far parts of the world keep watch on sea and sky.

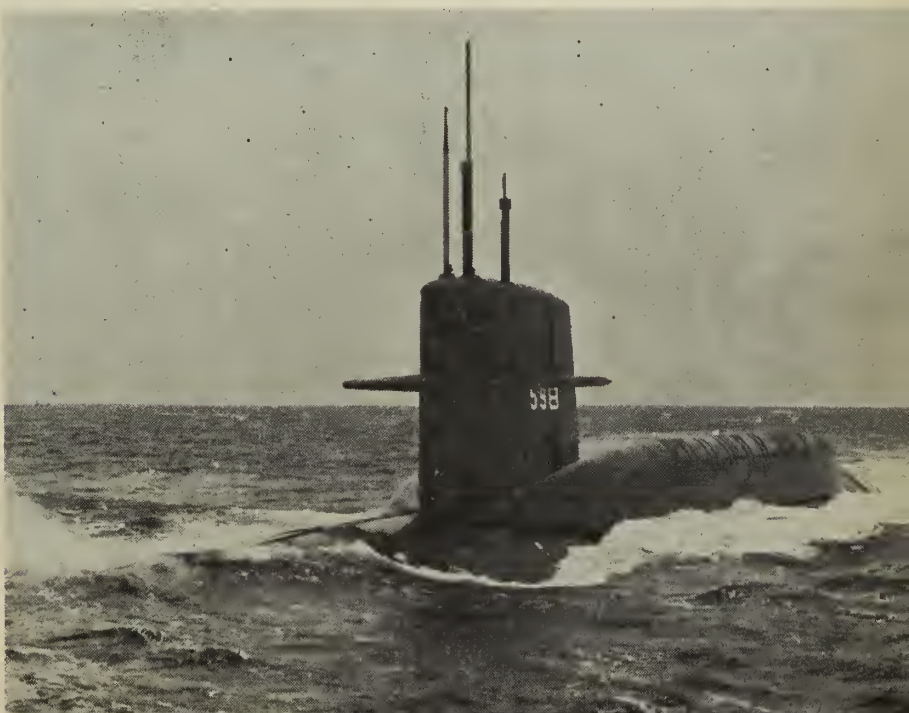
ture action against what they consider their chief potential enemy—the U. S.—would necessitate weapons which could span great distances, and furnish control of the seas. Increasingly, therefore, a much greater share of the Soviet military budget was channeled into missile development and submarine construction.

WHEREAS U. S. MILITARY spending must be stretched to provide a variety of weapons designed for many different purposes, Russia was and is able to pour huge funds into a specific project. As a continental power without overseas allies and

commitments, she neither requires nor wants a large surface fleet. She builds no expensive aircraft carriers nor their accompanying aircraft, has no service force.

A high percentage of the total strength which has made the Soviet Union the world's second largest naval power is contained in her estimated 450 to 500 submarines. Those submarines would have a threefold purpose in the event of a hot war: Active missile assaults on the U. S. and other overseas objectives; disruption of supply and communications between U. S. and her allies, and defense of home waters.

ELUSIVE—Fleet ballistic missile subs form scattered evasive launching pads.



In the air, much the same situation exists. The communists claim that the manned bomber has no place in the nuclear age. Nearly all of their air force spending is for missiles—long-range ICBMs for attack, interceptors for home defense—and for space exploration.

What piloted aircraft the Soviets do have are mostly the fast fighter type, much less expensive to build than huge bombers, and designed exclusively to control the air over their coasts and the off-shore waters.

The economic disparity affecting the size and kind of forces possessed by the two camps results directly from the different types of government involved. Unlike the U. S. and most of the free world, where the government operates through the will of the people, the absolute dictators who head communist countries are able to put as much or as little of their wealth into military spending as they see fit.

These two factors account, in large measure, for the so-called missile gap between the two factions. It is a gap which will possibly get worse before it gets any better. Its biggest danger lies in the fact that the communists might delude themselves into thinking the gap was big enough and decisive enough that they could safely risk triggering off an all-out nuclear surprise attack on the U. S.

THE KIND OF PEOPLE we are dictates at once both our military policy and the size and shape of

weapons we maintain. We will never launch a surprise attack against another country. A small minority in the U. S. have advocated the preventive war concept, claiming that its use would be justifiable against an enemy which is patently preparing for aggression against us. As a nation, though, most of us find the idea morally reprehensible.

The primary objective of our armed forces, then, is the deterrence and prevention of war.

This attitude doesn't spring from any defeatist or 'fraidy cat complex on our part—it is, rather, an acknowledgement that war is truly hell, bringing suffering, privation and death to millions of innocent people. We share the opinion that general nuclear war would be a well-nigh suicidal holocaust for much of the world, and should be avoided if at all possible.

Knowing this, the next step is to examine the means of preventing such a war. Should it take the form of appeasement, of giving in to communist threats and demands? Unthinkable. Such a course holds even less validity today than it ever did, and could only hurt us in the long run. Recent world history has taught us that aggressors invariably regard such actions as a sign of weakness, and follow up each such triumph with new and larger demands.

Should we abandon all overseas bases and commitments, repudiate all of our mutual assistance pacts with our smaller and less fortunate

friends and allies in both Europe and Asia?

Should we attempt to make the U. S. a tight little island, pouring most of our money and energy into purely defensive weapons? Again, unthinkable, purely apart from the consideration that—as the leader of the free world—we have the moral duty to protect millions of helpless people from communist domination and enslavement.

Let's face it—we need the rest of the free world just as much as it needs us. For one thing, a goodly share of the raw materials necessary for our survival comes to us from those friendly countries, delivered by shipping through sealanes kept open to us through our seapower. Another consideration: Many friendly countries house our forward bases—bases which are not only a part of our early warning network, but would be valuable springboards from which to launch deterrent or retaliatory strikes.

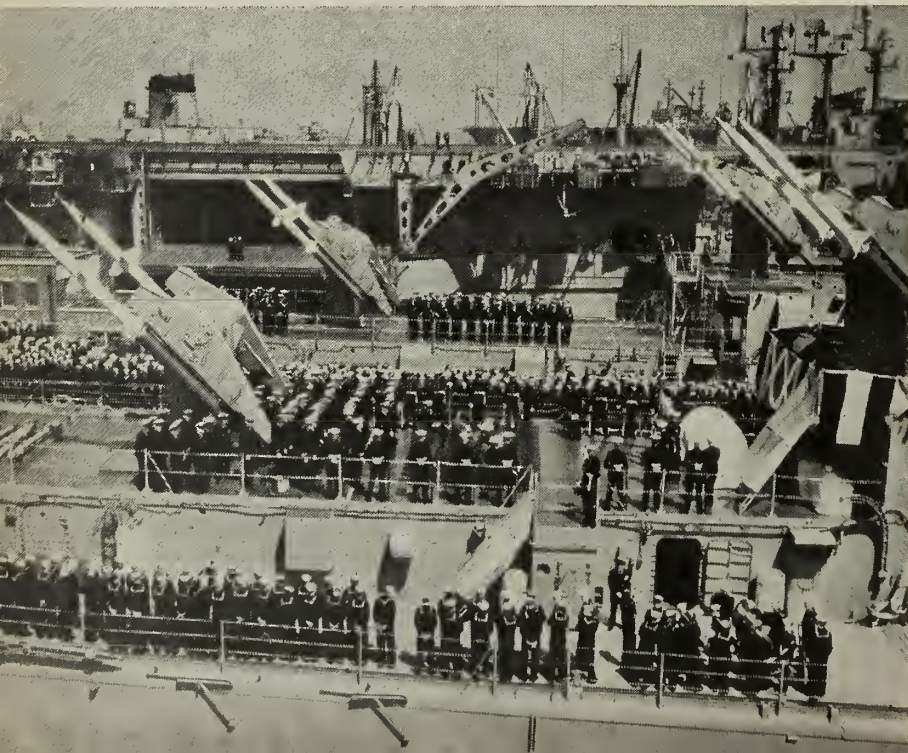
As surely as we abandoned the rest of the world to shift for itself, the communists would slowly but surely nibble it up, bit by bit, and we would eventually find ourselves alone, still subject to attack—at their time and choosing.

IT is a generally accepted belief that the best method of preventing the outbreak of general nuclear war is to possess retaliatory strength sufficient to convince any potential aggressor that an attack upon us would be as good as committing suicide. *This power of retaliation must be strong enough, diversified enough, and invulnerable enough so that even a massive surprise attack would not wipe it out, and it would be able to deal the aggressor an unacceptable amount of damage in return.*

Much of our present deterrent/retaliatory strength is contained in our forward operating forces—our carrier strike forces—which are almost constantly at sea in the general area from whence such a surprise attack might come. They possess one virtue above all others—mobility. They would have to be found, and caught, before they could be destroyed. In the event of an attack against us, they could move swiftly into position off the aggressor's coast, and launch devastating missile and air counterblows.

We cannot, however, be content

ON GUARD—Missile ships like these are part of a carrier's defense system.



to rely completely on massive deterrent power. We must also have the weapons to deter and discourage local aggressions and probes wherever they occur in the world, and the ability to wage limited wars if they do break out.

A FAVORITE COMMUNIST tactic is the instigation of an almost continuous series of rebellions, border violations, internal coups and other forms of unrest at widely separated points. They play upon people's hatreds and emotions, and exploit natural nationalistic sympathies, to sow the seeds of revolt and anarchy against established governments.

With such activity occurring from time to time in non-communist countries with many of which we have treaties of aid and friendship, we need to have forces ready and able to move almost instantly into a trouble spot with a show of force which will contain the action, whatever it is, to that general area, and prevent, if possible, the eruption of widespread fighting.

Thus our military strategy and much of our military hardware must emphasize the qualities of mobility, flexibility and versatility. Here again our balanced naval forces possess the desired characteristics to a marked degree.

Our carrier strike forces, supplied by their accompanying service force ships, and with the world's most capable naval aircraft operating from their decks to insure control of the air above them, have the ability to get to the scene quickly and to apply appropriate force—be it either conventional or atomic weapons—with precision, to military targets.

We don't want or need to use megaton bombs when smaller weapons can do the job. If we can deliver weapons with precision, we can use the less powerful weapon effectively. If we stick to military targets, using small weapons delivered with precision, we can minimize those factors which tend to enlarge and prolong a war.

In the Lebanon crisis, for instance, the Navy's ability to apply graduated force in support of national policy was well demonstrated. It consisted of naval air cover ready to pinpoint targets of opportunity and cover the Marines who landed by helicopter and through the surf in advance of the arrival of Air Force and Army contingents. It may have prevented the start of a war or major conflict.



PINPOINTING—Navy aircraft are designed to hit specific military targets.

The presence of our naval forces in the forward areas does more than act as a curb to aggression—it provides our friends and allies with the confidence they need to resist communist pressure.

The U. S. maintains mutual assistance pacts of one type or another with 42 different countries. In some cases these pacts involve several countries and large forces, and are quite well publicized—such as NATO and SEATO. Some larger nations—for example England, Turkey, West Germany—contribute heavily in arms and manpower, while others allow us to establish bases and station troops in their countries. Some do both. In many cases our pacts with small and weak countries are not bi-contributory, but are rather a guarantee on our part to protect them from attack and from interference in their internal affairs. This is especially true in certain areas of the Middle East and Asia.

In any case, most of those countries are literally staring down the barrels of communist guns. It is vitally important that they have continuing faith in U. S. ability and determination to back them up.

Just how comforting the presence of the U. S. Navy in their area is to them is revealed in a recent statement made by the Greek Minister of Foreign Affairs. He was referring to the Sixth Fleet in the Med, but his words could apply equally as well to the Seventh Fleet on the other side of the world.

"In the powerful grey diplomats of the Sixth Fleet," he said, "we see

the guarantee of small peoples' independence, for we know you command them with great inspiration and unselfishness for the service of freedom of the whole world. We feel certain that wherever there are free consciences suffering servitude, your presence brings steadfastness and hope."

NOW THAT WE'VE examined some of the missions our forces are expected to perform, let's re-evaluate the U. S. Navy in the light of its ability to do the job. It's important for the Navyman to understand the sea services capabilities and its role in the Cold War area.

- It has the ability to deliver, if necessary, very powerful weapons with devastating effect on enemy military targets of any kind.

- It is able to deliver these weapons with a variety of techniques at the source of the enemy's strength.

- It puts a substantial and powerful element of our national nuclear retaliatory power at sea on dispersed mobile bases, on and under the oceans, which are relatively safe from future weapons.

- These same forces, essential to our national retaliatory power, simultaneously retain the ability to deliver weapons tailored to military targets that require accurate delivery. There is no substitute yet in sight for the versatility of the small, piloted aircraft carrying a trained man on the spot using his eyes and judgment to select the proper target and hit with precision.

- The mobility of naval forces, combined with their power and ver-

satellite, makes for an economical and elusive combination tailored to the need of cold war or "brush fires," and a potent weapon in the event of all out mobilization.

- Naval forces represent power that we can place in spots as far as the oceans extend, for use as we will. On the high seas we do not need permission of foreign nations to take action which we consider necessary. (The build-up of bases ashore in a particular location calls for advance planning and there may not always be time for the build-up.)

- The defensibility of future carrier forces, difficult though it may be, is still simpler than the defense of stationary targets on land against the long-range missiles of the future. In reality, nothing on either side will be completely defensible in the future, so those forces which are comparatively less vulnerable may provide the key to survival of one side or the other. Naval carrier forces at sea will certainly be in a position of being safer, especially when built around nuclear-powered carriers.

IN LINE WITH the opinion that our continuing superiority in seapower is essential to our national survival, a large percentage of the Navy's time and money is currently, and will continue to be, poured into the anti-submarine warfare program.

At the outset of WW II Germany had only 58 operational submarines, yet they played havoc on our merchant shipping and very nearly

strangled us in a very effective blockade before we developed the weapons and means to combat them. Obviously, if we are to be able to operate our carrier strike forces in the forward areas with impunity, if we would keep the sealanes open to the flow of shipping both to and from our country, and if we are to defend our coasts against surprise missile attacks, we must develop weapons and techniques which will enable us to battle a fleet of submarines 10 times that large.

It's hardly surprising, therefore, that along with *Polaris* construction, further development in the field of antisubmarine warfare lies very near the top of the Navy's priority list.

This would seem to be the place to inject a very pointed thought. No single branch of our military services can single-handedly win a war. There is a continuing need for a strong Army, Air Force, Navy and Marine Corps, all working together in their assigned areas as a national defense team to provide the military security we seek. It would be sheer folly for the U. S. to adopt an "all our eggs in one basket" policy in regard to any one weapon or weapons system, for to do so is inevitably to invite attack in that area, and we might be left with nothing at all to defend ourselves with.

That's why it is dangerous to think in terms of the "ultimate deterrent weapon"—that is, to depend on any single weapon alone as a means of "insuring the peace" or

an instrument to win a hot war.

But in the arsenal of new weapons the Navy has developed one which has met with great enthusiasm. It is the "*Polaris* weapons system," evolving from the development of a nuclear-armed ballistic missile that can be fired from the surface or below the surface of the ocean.

Nuclear power in submarines is revolutionary in that it has created the true submarine, one able to cruise submerged at high speeds completely independent of the surface of the sea for long periods—as much as 60 days now, longer in years to come.

To be truly effective, a deterrent force should meet these criteria:

- The enemy or potential enemy should have a wholesome fear of it.

- It should be able to reach, with the requisite accuracy and effectiveness, any target in the enemy's territory.

- It would be advantageous for it to be so located that attempts to destroy it before it goes into action would not wreak damage on the U. S. itself.

- It should be highly invulnerable to all forms of enemy attack, including ballistic missiles.

- Its launching points should be such that they cannot be accurately located in advance by an enemy, and such that its most probable trajectories cannot be precalculated by an enemy.

- It should be as invulnerable as possible to all forms of counter-measures after it begins the battle.

- It should be as invulnerable as possible to enemy efforts at sabotage, subversion and espionage.

- It should have minimum reaction time—in other words, the time between the decision to fire and actual battle.

- It should so complicate the enemy's defense problems that absolute defense against it would be either technically or financially infeasible.

The Polaris system will meet all of the above criteria.

The Navy isn't going overboard on *Polaris*, however, at the expense of its other requirements. The need is for a balanced Navy. *Polaris* is designed for a specific objective, and must be kept in proper perspective. Current thinking is that a fairly small fleet of *Polaris*-firing submarines—perhaps no more than 40—properly dispersed, would be sufficient.

UP AND UP—Talos is a missile that will go after high-flying enemy aircraft.



TO SUM UP: As we enter the age of space, can we feel sincerely that the U. S. and the free world are strong enough now to defeat any aggression thrust upon them? The answer is, yes. Can we expect to remain so in the future? The answer, again, is definitely yes—if we want to badly enough.

Questions also arise with all of us concerning current developments. Are the communists sincere in their protestations that they desire a relaxation in world tensions? Do they really want to live in peace? Will there be a legitimate thaw in the cold war?

The answers to those questions must await the verdict of the future, and the outcome of negotiations between their leaders and the heads of governments of the free world. Certainly, however, there still exist some doubts that the long-time avowed communist aim—eventual world domination—has been radically altered so suddenly.

We find ourselves face to face with a strange situation. On the one hand the leader of the communist world speaks of coexistence and cooperation, yet at the same time he boasts of his sputniks, his enormous stockpiles of rockets, his fleets of submarines, and claims that he can destroy us. All of these boasts, this missile-rattling, appear to be meant to strike fear into the hearts of the weak-willed; to impress upon them a feeling of futility at attempting to resist such a power as theirs.



HOT SHOT—Polaris, Navy's undersea guided missile gives our submarine new far reaching striking power.

The communists have striven to create the impression that they sit behind a sort of master-control panel, and that at a whim they could wipe out all who would oppose them. (But a man is going to think things over very carefully if he feels he's going to get it right back in his own front yard.)

Even if their intentions are reasonably sincere, for that matter, the communists themselves would be first to recognize the value of negotiations conducted from a position of strength.

It has been made abundantly clear innumerable times in the past that the only logic which makes sense to communists is that which is backed up by military power, and the stead-

fast willingness to use that power, if need be, to defend what they seek to destroy.

It may come to pass that a worldwide system of inspection will be worked out, that disarmament of both sides will be accomplished, and the world will be freed of the threat of war. It could probably be accomplished, with good faith on both sides. Until all that happens, however, we have no choice but to remain strong and ever watchful.

Increasingly from many sides you hear complaints that a world filled with unceasing tension—days upon months upon years of wary caution—is no kind of a world in which to live. True, it isn't the greatest, but it happens at present to be the only way in which we can live.

For those who feel that way, a quick review of our own history might be helpful. It would reemphasize for them the fact that our early settlers and pioneers lived much the same kind of life through sheer necessity—one hand on the plow, the other clutching a gun, and one eye always cocked on the surrounding forest for signs of danger.

Not the sort of life they would have liked to live—it would have been easier just to give up, to back down and get out—but they stayed, and through their hard work and sacrifice, forged a better life for those who would follow.

There is every reason to believe that we can do the same.

—Jerry McConnell, JO1, USN.

ALWAYS READY—Seventh Fleet forms dispersed mobile bases in Pacific capable of striking back at an enemy attack.



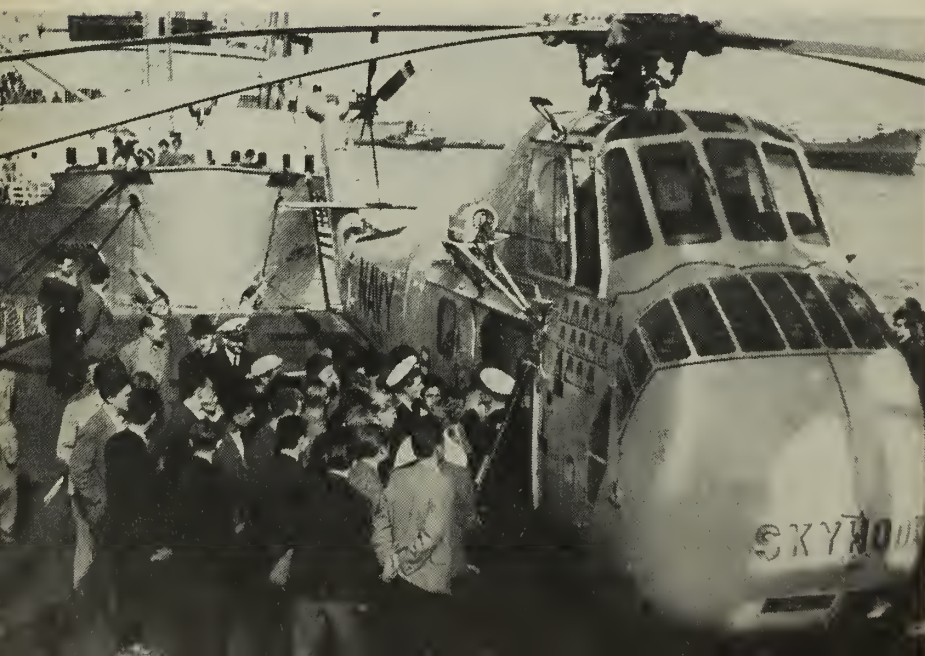


Friendly Visit

A UNITED STATES ship entered a Russian Black Sea port for the first time in almost 15 years when *uss Maury* (AGS 16) visited Odessa for several days during a survey cruise last fall.

Before *Maury* arrived there had not been a U. S. Navy ship in a Soviet Black Sea port since February 1945, when *uss Catoctin* (AGC 5) served as headquarters for the staff that accompanied President Franklin D. Roosevelt to the Yalta conference.

Because American naval visits are such rare occasions, many Russians took advantage of the opportunity to see one of our ships close up. And, while the Odessans were being taken





A Hopeful Sign

on guided tours of the ship, *Maury's* crew members visited museums, market-places and other points of interest in the city.

Pictures, clockwise from upper left: *Maury's* skipper, CAPT R. W. Ruther, usn, poses with group of children from Odessa who presented bouquet to him. Local girls visit ship's bridge. Navymen tour Russian market. Sightseeing *Maury* men view exhibits in a Russian war museum. Part of the crowd that lined up for a chance to see the ship. AGS 16 moves along. A Navy helicopter on *Maury's* deck attracts a crowd of curious visitors. Ensign C. F. Schoen, usn, explains shipboard gear.





Getting Personal

WHAT'S BEHIND ALL this cold war talk? Is it just flag-waving or more gobbledygook that really doesn't concern you?

Your reaction may be: "The hell with it. If the cold war is so big that it involves dozens of nations and millions of people, why pick on me?"

If so, it's typical. The average serviceman, and John Q. Citizen as well, has had the feeling that this is one for the big guys to handle. But whether we like it or not, we're in it.

If anything is ever going to be accomplished in the cold war—and you can rest assured that sooner or later, in one way or another, it will be—naturally you want the results to be to your liking.

The average Navyman—simply by being in the Navy—is in a position where he can really help win the cold war. One of the big difficulties, however, is being able to recognize the constantly occurring cold war situations and conditions that are part of our day-to-day living.

The cold war is a very personal

matter. It is being fought in the psychological arena to win the minds of individuals the world over. This being the case, then, the Navyman needs to prepare himself for a "battle of ideas."

First of all, it would be beneficial to understand the basic principles and fundamentals of democracy and of the American way of life. And similarly, it is important to understand the basic reasoning and theory on the other side of the iron curtain, too. By knowing the aims and tactics of the communists and the goals they have set for themselves, you'll be better prepared to meet their challenge.

The next logical step is to act in such a way that reflects—favorably—the American way of life. Navy-men have an excellent opportunity to do this as they really get around. Not only are they stationed in all parts of the world, but they also find themselves frequently visiting foreign ports. (Last year, for example, Navy ships visited some 240 ports in 74 different countries—and that does not include the ports of call



-The Cold War and You

made by Sixth Fleet ships in the Med.) Thus, U. S. Navymen probably have more contacts with the people of the world than any other group, service or citizen.

Sailors have always been known to be world travelers. In moving about the world, they have almost daily opportunities to see "action" in the cold war. Navymen are, more or less, in the front lines and in a position to do something important.

While overseas, all Navymen, whether they fancy the role or not, serve as representatives and spokesmen for the U. S.—and our country is judged by the impressions they make. Anyway you look at it, representing your country overseas is a pretty big assignment and every Navyman should be prepared for it.

The people in even the most remote corners of the world have heard much about the U. S. by radio, in movies, in magazines and books. But in many cases, the visiting U. S. Navyman is the only real, live flesh-and-blood American that they ever see. To these varied people, the individual Navyman represents the

U. S. Your visit to their towns and how you act while there will do much in forming their impressions of the U. S. What kind of representative are you?—One who builds a good opinion of the U. S., or one who helps tear it down? A representative who promotes peace, or one who helps the communists in their cold war efforts?

In floods, earthquakes and other types of disasters, the Navy has always been quick to respond and offer whatever assistance is possible. Such actions do much to promote and improve friendly relations.

In spite of all the hard work, effort and money that goes into promoting such good will, the misconduct of just one man can do much to shoot it all down. Individual incidents of misconduct produce nothing but bitterness and hatred toward the U. S. and often undo all the good that considerate conduct achieves.

Unfortunately, opinions are usually formed on the basis of the few men who stand out because of their misbehavior. Most Navymen on liberty know how to act but there

are occasionally those few who do not.

And it is the actions of those few which play right into the hands of the anti-American groups. These groups want nothing more than the opportunity to discredit the U. S. They want the shout of "Go Home Yank" to be heard on every possible occasion. So, in their "battle of minds" they play up and emphasize the less desirable conduct of a handful of U. S. servicemen and the effect that their conduct has on the native people.

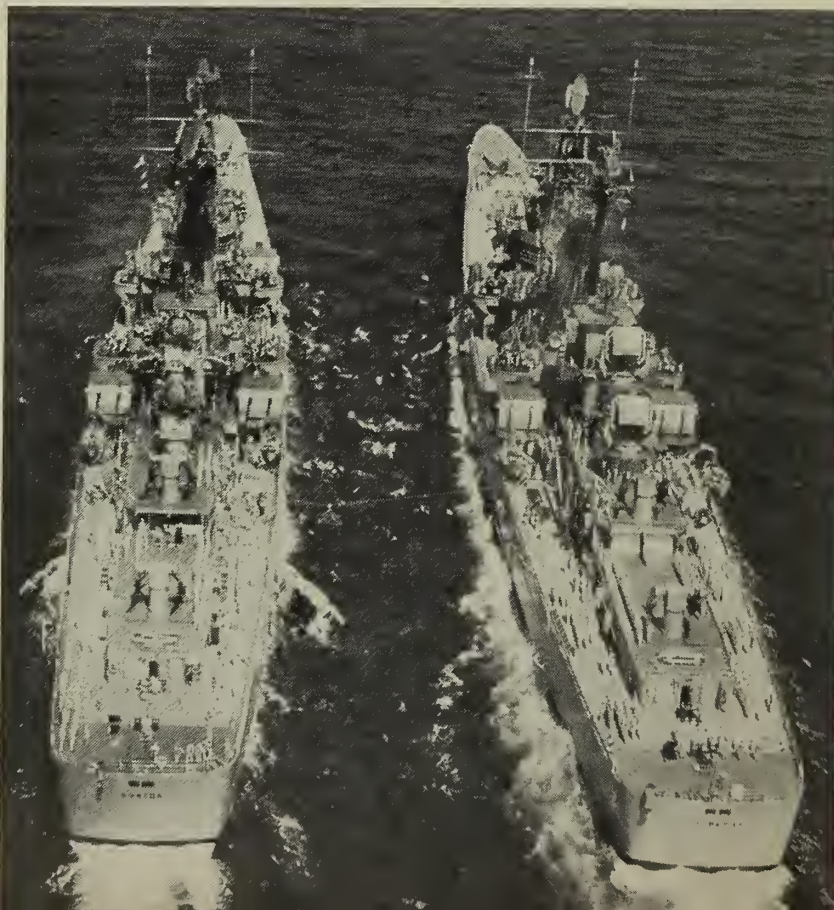
Some Navymen seem to have the impression that just because they are overseas they can act as they please. They often think the laws of the country in which they are serving or visiting do not apply to them. Usually they find out quite differently and often the hard way.

But there's no need for all that. The average Navyman can avoid all this by showing respect for foreign laws and customs and having a courteous regard for ways of life that differ from ours.

You don't have to sacrifice a thing.



ON LAND OR AT SEA Navy men are always in a good position to help win the cold war between communism and free countries throughout the world.



You don't have to lower your standards or play second fiddle to anyone. All that's needed is to give the other fellow the same kind of respect and consideration you would give to any of the folks in your own hometown.

By simply doing this, the Navyman symbolizes our country's traditions and ideas and at the same time assures the people of the world that the U. S. is dedicated to the cause of peace. This in itself is a major contribution to the cold war effort.

AND THEN THE NAVYMAN has certain cold-war responsibilities at home or on the job, aboard his ship or station.

Although you may not realize it, your cold war mission also includes your day-to-day activities that you often take for granted. Knowing the Navy and your job, fulfilling your military requirements, understanding and practicing good naval leadership, living up to your responsibilities—these all have something to do with the cold war.

The savvy Navyman knows the history, traditions and missions of the Navy. He doesn't have to be a student of naval history, but he will find it helps to have a general understanding of the Navy's past, present and future. For example, take a look at the box at the top of page 64 of this issue. It appears there every month. If every Navyman knew this credo and understood what it means he would have a good knowledge of the Navy and its missions. This is important because the Navy's missions are also the missions of every individual Navyman.

It's worth your while to take some time to think about and recognize your own importance to the Navy—that you, as an individual, are needed and that your efforts do count.

All significant group activity depends upon the performance of individuals within the group. A task force commander may be directing a large operation, but that operation would not be a success without the individual ships and planes and the individual members in their crews, each doing their assigned tasks. A skipper on the bridge may order flank speed but there wouldn't be much headway if the individual members of the crew were not doing their jobs. In other words, an individual ship, a task force—or the entire Navy—can be effective only if the "individual" does his job.

ALL HANDS

No doubt you have heard a shipmate remark, "I put *Independence* (or some other ship) in commission." And, when you heard that remark, perhaps you thought that the person speaking was just another guy with an enlarged sense of his own importance. Was he attempting to give the impression that he alone put that mighty, 65,000-ton carrier into commission?

No. He was giving voice to the fact that he had a part—and a significant part—in getting *Independence* ready to join the Fleet. Such a task depends upon several thousands of individuals being able to say, "I put *Independence* in commission." And everyone of them counted.

A sharp Navyman attempts to perform his job and fulfill his military requirements in the best possible manner. He does so by displaying a combination of ability, appearance, alertness, spirit and show. That is nothing more than military smartness—and it pays dividends in more ways than one.

This brings us to the subject of leadership. Naval leadership is not new. It is as old as the Navy itself. Ships and equipment are different, but it still takes leadership to make them operate. Our way of life has become so swift that survival itself depends upon successful leadership.

BY BEING SHARP and considerate, Navy men can be a strong weapon against anti-American groups everywhere.



NO MATTER how far off or big the cold war seems, it concerns all Navy men.

There can be no hesitation or debate on an order if ever a missile attack is launched against us.

There is much that every individual Navyman can do insofar as leadership is concerned. It's not as hard as you think. Simply start by reviewing your actions and behavior, your goals and ambitions, your examples and your sense of responsibility. It takes work and thought, though. Good leadership may come

naturally to some, but it still means work—and practice.

All of these taken-for-granted matters of every day life—leadership, knowing your job, military smartness, understanding democracy and communism, and practicing the American way of life—are matters of extreme importance that personally affect each individual in this cold war era. It's up to us.

—H. George Baker, JOC, USN.





Ships and Men of

Long before RADM Alfred T. Mahan pointed out the way seapower has influenced the course of history, nations which depend on the sea in their commerce and defense were aware of the importance of naval power.

Today, when the sea can be used as a base for mobile missile-launching platforms, and when all sorts of vital material are moved by sea, navies are more important than ever.

In the cold war, the United States and many friendly nations contribute to the naval strength of the free world.

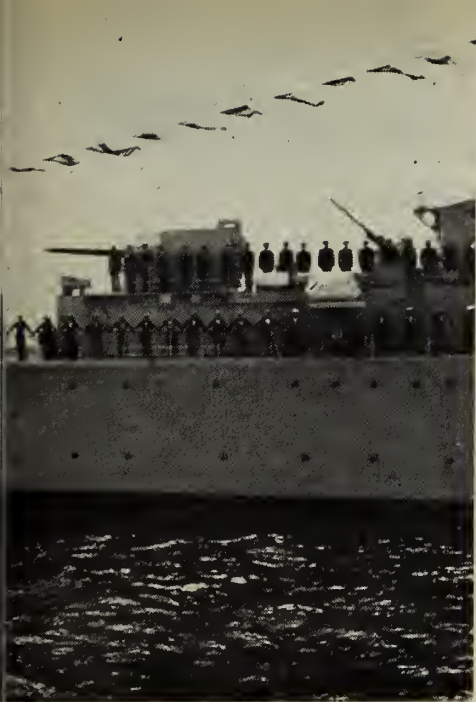
Shown here (clockwise from upper left) are a few examples of that international defense effort:

- The Canadian Navy's HMCS *Kootenay* takes part in ceremonies connected with the opening of the St. Lawrence Seaway. A new type of antisubmarine frigate, *Kootenay* and her sister ships have attracted considerable attention in naval circles.

- Crew members of the British Fleet destroyer, HMS *Saintes*, man the rail for NATO reviewing party.

- An American white hat (upper right) shares space





Free World's Navies

with other headgear at an international get-together.

- A lieutenant on board a Spanish ship visiting New York explains the significance of symbols on his country's union jack to an American seaman. Each quarter in the flag represents an original Spanish kingdom—the castle for Castile, the lion for Leon, the stripes for Aragon and the chains for Navarre.

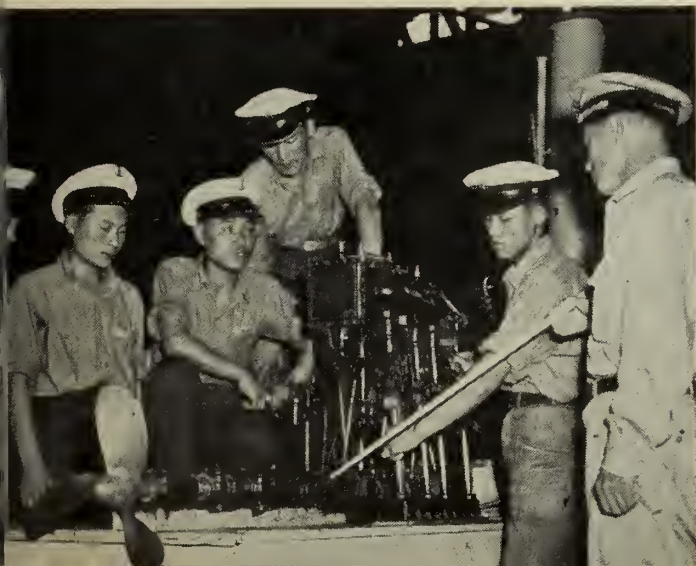
- Vice Admiral George W. Anderson, Jr., Commander Sixth Fleet, and Rear Admiral Charles E. La Haye, of the French Navy, take part in a ceremony at Toulon.

- An instructor at the Republic of Korea Naval Academy lectures to a diesel engineering class.

- A crew member of *uss Salisbury Sound* (AV 13) explains shipboard machinery to Viet-Nameese sailors who visited the U. S. ship on goodwill trip to Saigon.

- An American warrant officer looks on as an entry is made in the engineer's bell book of a ship transferred to the Republic of China.

- Crown Princess Beatrix of the Netherlands inspects Dutch Navymen at Holland's Vlissingen Naval Base.



WHAT IS OUR BILL OF RIGHTS

THE BILL OF RIGHTS is actually the first ten amendments to the Constitution of the United States. It is one of the foundations of American democracy. Most of us take for granted the freedoms that it guarantees.

ARTICLE

1 FREEDOM OF RELIGION, SPEECH, OF THE PRESS, AND RIGHT TO PETITION

Article I: Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

FREEDOM OF RELIGION. The first Article of the Bill of Rights forbids Congress to favor any particular religion or to pass a law interfering with an individual's practice of religion. All religions are given the same freedom. We can worship in the church of our choice—or no church at all—whether it be Protestant, Catholic, Hebrew, Islamic, or any other. While our public schools may not teach any particular religion, our churches are free to establish their own schools for this purpose.

FREEDOM OF SPEECH AND PRESS. One of the most vital freedoms guaranteed by the first amendment is the right to speak and write freely. This is not, of course, an absolute and unrestricted right. The laws provide punishment for publishing obscene and libelous matter. Military secrets may not be published. And speech or writing that is intended to bring about the violent overthrow of the government is punishable. But these restrictions are to protect our freedom and individual rights, not to limit them. We are free to criticize the government from top to bottom and to advocate changes in it. We can listen to news broadcasts from all parts of the globe, read about, or see important events on TV and in news films as they happen.

RIGHT OF ASSEMBLY AND PETITION. The right of Americans to assemble peaceably and "to petition the Government for a redress of grievances" is another right we take very much for granted, because it has become an inseparable part of our way of life.

It means that any number of Americans can gather to discuss and protest against conditions in the community, state, or nation, and that they can make known what they want done about them. They can form social organizations for any peaceable purpose.

ARTICLE

2 RIGHT TO KEEP AND BEAR ARMS

Article II: A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

Article II links the people's right "to keep and bear arms" to the need for a militia for the security of a free country. At the time the Bill of Rights was drawn up, it was feared that Congress might disarm the state militias. This amendment forbids such action. The right to bear arms, of course, does not prohibit Congress from taxing the sale of weapons and restricting their use (for example, carrying concealed weapons).

ARTICLE

3 QUARTERING OF TROOPS

Article III: No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

This amendment provides for the protection of the individual by prohibiting the government in time of peace from invading his privacy by quartering troops in his home; and in time of war only in accordance with the law. This was particularly important in the days when our Constitution was formed and could be equally important today if there were no such provisions to protect our rights.

ARTICLE

4 RIGHT OF SEARCH AND SEIZURE

Article IV: The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the persons or things to be seized.

Declares the people's right "to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures," and states that no warrants shall be issued without good cause.

Under this amendment, our higher courts are careful to protect the rights of individuals who have been arrested illegally, even though they have been proved guilty of the crimes for which they were arrested. The protection against illegal arrests applies to all citizens, whether or not their arrest is considered criminal.

ARTICLE

5 TRIALS FOR CRIMES; COMPENSATION FOR PRIVATE PROPERTY TAKEN FOR PUBLIC USE

Article V: No person shall be held to answer for a capital or infamous crime, unless on a presentment or indictment of a grand jury, in cases arising in the land or naval forces, or in the militia in time of War or public danger; nor shall any person be subject to the same offence to be twice put in jeopardy of life or limb; nor shall any person be subject to be a witness against himself, nor be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Three of the five provisions of the fifth amendment are of great importance today.

1. Nobody can be forced to testify against himself. This is the right not to testify against oneself, a right that is protected in a court trial. Later, the Supreme Court interpreted it to include persons testifying before committees. There have been a number of cases in which the Supreme Court has upheld the right to refuse to answer questions of a witness on the grounds that his answer would incriminate him; that is, put him in danger of being convicted of a crime.

The important word here is "criminal." A person can be punished for contempt of court or for refusing to testify on matters which do not relate to criminal prosecution; for example, in a civil case, or in their names.

2. Nobody shall be deprived of life, liberty, or property without due process of law, that is, without the protection of the most vital clauses in the Bill of Rights. The Supreme Court interprets it to mean that a person cannot be deprived from bodily restraint, but also the right to contract, to engage in any of the ordinary activities of life, to acquire useful knowledge, to marry, to have a home and bring up children. . . . All these privileges long recognized of the citizen are essential to the orderly pursuit of happiness by free men.

3. No private property may be taken for public use without a fair price being paid. The government does have the right to take private property for public use—for example, land on which a highway or a dam is to be built—but it must pay the owner by stating that he must be paid a fair price. If the government and the owner cannot agree on the price, the question can be taken to court.



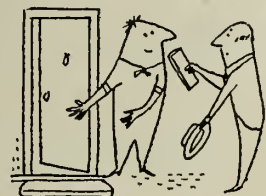
At this time, when millions of people have lost their basic rights and the rights of all free men are being threatened, ALL HANDS Magazine presents a report on the Bill of Rights and what it means to you.

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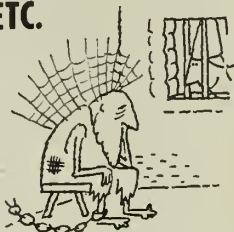


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6

Article VI: In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

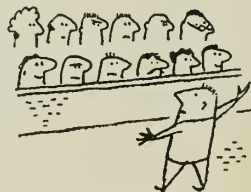
Federal Criminal Court Procedures. This amendment states that anyone accused of a federal crime has a right to a speedy and public trial by an impartial jury in the state and district where the crime was committed. The person accused must be told what crime he is accused of, so that he can prepare his defense. The witnesses against him must appear in court, so that he can hear their testimony and cross-examine them (usually through his lawyer). The court must compel the presence at the trial of persons the accused wants to testify in his behalf. Finally, the court must see that the accused has a lawyer to defend him and provide one for him if he can't afford to hire one himself.



7

Article VII: In Suits of common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

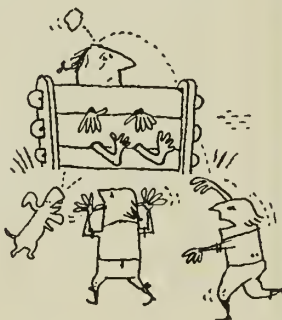
This amendment provides the right of trial by jury in a civil law suit in federal courts about anything valued at more than \$20.



8

Article VIII: Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

The amount of bail required usually depends on the seriousness of the offense and on the offender's ability to pay. Cruel and unusual punishment has been defined as punishment that "is shocking to the sense of justice of the civilized world."



9

Article IX: The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

This amendment specifies that because certain rights are mentioned in the Constitution other rights *not* mentioned will not be taken away.

To list a few (you will think of others): The right to live where we want to and to travel freely about the country; the right to work at the job of our choice and to leave it if we don't like it—even the right not to work if we can afford it; the right to travel to foreign countries.

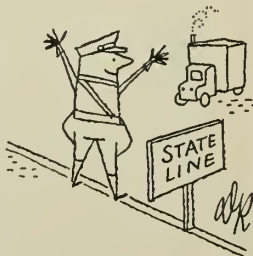


10

Article X: The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States, respectively, or to the people.

The Constitution delegates the exercising of certain powers to the federal government; certain other powers are reserved for the states or the people.

Thus, a state may not coin its own money or make a treaty with a foreign nation because the Constitution states specifically that money-coinage and treaty-making are functions of the national government. On the other hand, a state may establish a school system, rather than the national government.



SAMPLE: COMMUNIST PEACE TALKS



For many months, as Senior United Nations Delegate at the Korean armistice conference, the late Admiral C. Turner Joy, USN, encountered at first hand the intricate bargaining methods of the communists. This is the record, based upon excerpts from his book How Communists Negotiate, of what Admiral Joy saw and learned in those months of the Korean cease-fire parleys.

COMMUNISTS neither blunder into conferences nor rush pellmell to engage in negotiation. First, they carefully set the stage. Their concern for maintaining "face," as well as their regard for practical advantages arising from favorable negotiating conditions, causes the Communists to consider carefully the physical circumstances in which a parley is to occur. Witness how they applied this principle of stage setting in the Korean Armistice Conference.

During late June of 1951, the Soviet Ambassador to the United Nations remarked publicly that it might be well if the opposing sides in Korea arranged a truce, based on the 38th Parallel as a truce line.

On 20 Jun 1951, General Ridgway caused a message to the Communists to be broadcast, suggesting that truce talks be held in the Danish hospital ship *Jutlandia*, after the ship had been brought to the harbor of Wonsan, North Korea. Thus General Ridgway offered as a site for truce talks a hospital ship, internationally recognized as a nonbelligerent facility, a ship provided by a government (Denmark) which had not participated in the Korean fighting. This neutral, noncombative ship was to be placed in waters controlled by Communist guns and mine fields. This seemed as reasonable an arrangement as could be conceived.

The arrogant Communist reply came by radio on the

night of 1 July. It did not even mention *Jutlandia*. The language used in the response might be paraphrased as follows:

"If you desire a truce, come to Kaesong and we'll talk."

KAESONG is a city almost precisely on the 38th parallel of latitude. We were to learn later the significance of that fact. Moreover, Kaesong was controlled by the Red Chinese, so that by going to Kaesong the United Nations Command representatives in effect went to the Communists, rather than meeting them halfway.

Obviously, the Communists wished to make it appear that the United Nations Command was in need of a cessation of hostilities and therefore came hat in hand to a Communist citadel to ask a truce. General Ridgway recognized these facts but considered that in the interests of saving time and of showing sincere intentions Kaesong should be accepted.

On the 8th of July, Colonel Andrew J. Kinney, USAF, and several other United States officers proceeded to Kaesong to arrange with Communist liaison officers for the meeting of delegations on July 10th. Without success, Kinney sought Communist agreement to a demilitarized neutral zone around Kaesong. The Communists refused to give up their advantage of military control of the Kaesong area.

Throughout this initial meeting Kinney and his party, though completely without arms, were surrounded by troops of armed Communist soldiers brandishing machine guns threateningly. Communist photographers and

Reprinted from "How Communists Negotiate," by Admiral C. Turner Joy, USN (Ret.), published by the Macmillan Company, New York, with copyright, dated 1955, by C. Turner Joy. Reprinted by permission of copyright owner.

press representatives did not fail to make the most of this situation, in line with their thesis that the United Nations Command, not the Communists, needed and sought a truce.

WITH THE STAGE set to their liking, Communists proceed to implement the second principle of their negotiating method. They seek an agenda composed of conclusions favorable to their basic objectives. Among men who adhere to logic, an agenda is understood to be only a list of topics to be discussed, concerning which agreed conclusions are later required. For example, Americans meeting to discuss arrangements for a baseball game might adopt an agenda as follows:

1. *Place the game is to be played.*
2. *Time the game is to start.*
3. *Selection of umpires.*

Communists, however, would submit an agenda like this:

1. *Agreement that game is to be played in Shanghai.*
2. *Agreement that game be played at night.*
3. *Agreement that umpires be Chinese officials.*

Thus the Communists seek to place their negotiating opponents on the defensive from the outset. If their rigged agenda is carelessly accepted by their opponents, the Communists are able to argue that the only questions remaining are: exactly where in Shanghai the ball game is to be played, exactly what time at night the game is to start, and precisely which Chinese are to officiate. Notice how the Communists sought these advantages by such procedures at Kaesong.

Consistent with their concept of an agenda as a set of conclusions, the Communists formally proposed the following as the first two items for discussion:

1. Establishment of the 38th Parallel as the military demarcation line between both sides, and establishment of a demilitarized zone, as basic conditions for the cessation of hostilities in Korea.

2. Withdrawal of all armed forces of foreign countries from Korea.

Nam II supported these two points by simply asserting that they were "basic and inseparable." He said that withdrawal of foreign troops from Korea was "a basic step toward peace." Thus the Communist concept of an agenda was a set of conclusions which would restore the situation in Korea to that obtaining before they launched their aggression in that country.

THIS DIFFERENCE of approach gave rise to a major discussion between Nam II and me on the first day of the conference.

Discussion flowed with all the speed of a stiff concrete mix. Each statement by Nam II had to be translated into English and Chinese; each statement I made had to be rendered in Korean and Chinese.

During translations, Nam II chain smoked, fiddled with pencils (which he frequently broke), rattled papers, conversed in whispers with his Chinese colleagues, and generally conducted himself like a cat on a hot tin roof. The actual power in the Communist delegation, shrewd Chinese General Hsieh Fang, watched proceedings broodingly. Occasionally he passed a terse note to Nam II, who invariably seemed to comply with the instructions contained therein. Hsieh Fang's sole concession to the tension of the situation was a nervous bobbing of his close-cropped head. His saturnine yellow face was a set mask, revealing nothing, expressing nothing.

These two men, Nam II of North Korea and Hsieh Fang of Red China, were the source of all actions by the Communist delegation, with the Chinese taking an increasingly dominant role as time passed. Between them they provided unplumbed depths of cunning and deviousness as they sought to fasten upon the Korean armistice conference their "loaded" agenda.

They failed. The agenda finally adopted, after ten sessions of bitter argument, contained no conclusions. It read as follows:

1. *Adoption of the agenda.*
2. *Fixing a military demarcation line between both sides so as to establish a demilitarized zone as a basic condition for the cessation of hostilities in Korea.*
3. *Concrete arrangements for the realization of cease fire and armistice in Korea, including the composition, authority, and functions of a supervisory organ for carrying out the terms of cease fire and armistice.*
4. *Arrangements relating to prisoners of war.*
5. *Recommendations to governments of countries concerned on both sides.*

ONCE NEGOTIATIONS have actually begun, Communists are not satisfied to allow matters to proceed in a climate of peace and calm. Rather, they create "incidents" calculated to provide advantages for their negotiating efforts or for their basic propaganda objec-

UN AND COMMUNIST delegates seem far apart during the lengthy negotiations to settle the conflict in Korea.





AT KAESONG—(L to Rt.) VADM C. T. Joy, Major Gen. H. I. Hodes, USA, and RADM A. A. Burke take a break.

tives, or for both. Such incidents do not simply occur; they are plotted and triggered. Their two purposes are usually served equally by a single incident. Such a case was the first incident at Kaesong.

On the morning of 4 August, the UN Command delegation was proceeding toward the Kaesong teahouse in which the meetings were held. Our convoy of jeeps was halted in mid-course while an entire company of about 100 heavily armed Chinese, complete with machine guns and mortars, marched across our path and through the immediate conference area. This was in flagrant violation of the commitments made only two weeks earlier.

The point of this demonstration seemed to be that notwithstanding verbal agreements to keep the conference area free of armed men, no one would be allowed to forget the hard fact that Communist military forces actually surrounded and controlled the area. To illustrate the point, the Communists simply marched an organized military force through the conference area.

On entering the conference room, I immediately registered a vigorous protest to Nam II. Blandly, he replied that the forces in question were "military police." Military police rarely march about in groups of 100, carrying heavy machine guns and 60mm mortars.

ONE OF THE MOST notable negotiating tactics of the Communists is to delay progress. As a general matter, Communists believe that once negotiations have been initiated, to delay progress tends to weaken the position of their opponents. They hope to exploit to their advantage the characteristic impatience of Western peoples, impatience to complete a task once it has begun.

This is a shrewd analysis, particularly as it applies to

Americans. We like to get things done. We are taught by word and example throughout our lives that once we tackle a job, the point is to finish it successfully as soon as possible. It is probably true that this same quality of impatience made America the greatest nation on earth. It is certainly true, however, that the Communist negotiating method recognizes and seeks to gain advantage by aggravating our American tendency to impatience.

Another primary Western characteristic the Communists rely upon is our concern for human suffering. Since they are totally unaffected by human considerations, Communists are willing to impose delays on negotiations even if such delays mean greatly increased human suffering and loss of life.

At the same time, they know well that we of the Western world are unwilling to seek negotiating advantages through delays, if such delays entail increased human misery. Accordingly, Communist negotiators act upon the premise that if they delay matters long enough, their free-world opponents will recede from previously held positions in order to achieve a measure of progress, especially in the face of continued war and its attendant horrors.

An example of the Communist delaying tactics occurred in connection with the debate over fixing a line of demarcation on which war should cease. The UN Command insisted that this should be in the area of the battle line. The Communists clung to their proposal that the 38th parallel be the truce line. Bear in mind that the Communists ultimately agreed to the line of actual contact; in fact, this solution probably was never truly objectionable to them. Still, they sought by extended argument to delay matters in the hope of realizing concessions from the delegation on our side.

This is a partial sample of the exchange which went on between us:

General Nam II: "You have deliberately maintained, in order to confuse people, that the military demarcation line and the demilitarized zone you proposed are based on the present battle line and that they are located in the general area of the battle line. You have also deliberately confused the military demarcation line, the southern boundary of the demilitarized zone and the present battle line.

"In order to support your proposal of pushing the military demarcation line to the north of the 38th parallel, deep into our positions, you have persistently emphasized the so-called superiority of your naval and air forces and that, therefore, you must be compensated on the ground.

"I can tell you frankly that as long as you do not abandon your unreasonable proposal, it will not be possible for our conference to make progress.

"As for our proposal, its reasons are irrefutable; therefore it is unshakable. We insist on our proposal of making the 38th parallel the military demarcation line."

Admiral Joy: "In adhering to your futile fixation on an effort to divide Korea by cloaking political maneuvers under the guise of a military armistice, you have blocked every earnest effort of the United Nations Command delegation to make progress toward a cessation of bloodshed and suffering. Your cold calculations take no account of such matters as the pitiful suffering of the Korean people.

"Ruthlessly, arrogantly, and with the assumed air of a victor, you baldly assert that your demands must be met. The record of these proceedings has become your unanswerable accuser. You did not come here to stop the fighting. You did not come here to negotiate an armistice. You came here to state your price—your political price—for which you are willing to sell the people of Korea a temporary respite from pain. You have tried to camouflage your purpose in words cleverly designed to trap the unwary. You are failing. Your arrogance and your bad faith stain through every attempted deception. The immutable facts hold you guilty of having delayed, and of continuing to delay, the end of hostilities in Korea. I do not envy you the place to which Truth assigns you."

COMMUNISTS REALIZE that negotiations must necessarily result in some few agreements that are objectionable from their point of view. They know that the very nature of the act of negotiating involves accepting some of their opponent's proposals either in whole or in part. Since they appreciate this as inevitable, Communists seek to reduce the magnitude of commitments they are compelled to make and which they intend to dishonor. They aspire to reduce the scope of investigations which may arise from their premeditated violations of agreements. There is no question in my mind that this dark thought lies behind the current Communist refusal to accept effective inspection and supervision of any international agreement to disarm.

When their attempts to avoid agreements tending to restrict them are not entirely successful, the Communists then seek to retain a veto on all machinery of enforcement of agreements. In the discussions on Agenda Item 3, relating to the supervision of the Korean armistice, the Communist interest in retaining the veto power became apparent. Over the steady objections of our adver-

saries, we had insisted upon the creation of supervisory organizations to check the compliance of both sides with terms of the armistice. Two organizations were visualized. One, a Military Armistice Commission, was to supervise, among other things, proceedings in the narrow neutral strip between the two opposed armies after the cease fire went into effect.

The other, a Supervisory Commission, was to be charged with the inspection of activities of each side in the rear areas. This latter commission would conduct its inspections by means of a number of observer teams permanently located at ports of entry, and by another group of mobile observer teams which could be sent anywhere to investigate reported armistice violations. In order to facilitate the functions of these mobile neutral observers, we had proposed that the observers be afforded the right to reconnoiter by air any area of Korea.

The Communists refused to agree. They insisted on a two-edged veto. First, they proposed that the activities of the supervisory bodies be contingent upon unanimous agreement of the members. A dissent by one of the Communist members would constitute a veto. Second, they refused to allow aerial reconnaissance. Thus, even if all Communist members of the supervisory organization voted in favor of investigation, the observer teams on the ground could be effectively frustrated through lack of aerial reconnaissance.

Communists regard any concession made by their opponents as a sign of weakness. Many Westerners entertain the notion that to accept some part of a Communist negotiating proposal will encourage the Communists to respond in kind.

On the contrary, such action is likely to induce an even more adamant attitude on their part. The Communists reason that their opponents would not accept any part of Communist proposals if any other choice were available. Communists expect their opponents to accept their proposals only when compelled to do so, or when an exchange of concessions by each side is involved. Therefore, if Western negotiators simply agree to a Communist proposal without insisting on an equal

POW-WOW TENT—United Nations military men form guard outside house where peace conferences were held.





COMMUNIST military policemen change guard during long watch in front of conference tent at Panmunjom.

concession on another point, the Communists conclude that their opponents are in a weak general position. With this conclusion in mind, the Communists become more aggressive, demanding more, and conceding nothing.

COMMUNISTS WILL NEVER accept a Western proposal, or recede from one of their own, simply because logic or truth indicated such action, or merely to make progress in a conference. Accordingly, they will not credit their opponents with being motivated by logic or by a sincere desire to make progress. Whenever Western negotiators make a concession to Communist views for the purpose of making progress, Communists consider this action is evidence of a deteriorating Western position. Therefore, they press even more strongly for further concessions, and become more confident that time plays on their side.

To the Communist, an agreement has no special validity of its own, no matter how solemnly ratified. An agreement is binding on Communists only if it operates to the advantage of their purposes. If they discover that an agreement works to the disadvantage of Communism, then it is invalid. To their devious minds, it is irrational to abide by an undertaking that is working out badly for their cause, no matter what dishonor might attend the act of welshing. Whoever rests his faith on the reliability of Communist agreements hangs perilously by a frayed rope.

A somewhat amusing indication of the Communist tendency to welsh occurred in February 1952, when we took up Item 5 of the agenda. This item was cryptically stated as "Recommendations to the governments concerned." The Communists wished to incorporate in this item all manner of proposals relating to the general situation in the Far East. The United Nations Command delegation firmly maintained, however, that the "character" of the Korean armistice conference limited it strictly to Korea. Finally, the Communists submitted a proposal regarding Item 5. The sense of this proposal was substantially that after the armistice was signed, a political conference should be held to discuss such matters as withdrawal of foreign troops from Korea, a peace treaty for Korea, and related matters.

Our delegation considered the Communist proposal from the standpoint that, after all, it constituted no more than a recommendation to the governments involved in

the Korean War. Those governments could accept or reject the recommendation as they saw fit. Therefore, we promptly accepted the Communist proposal.

When I informed Nam Il that our side accepted his wording for Item 5, the Communist delegation went into a state of confusion. Not only had the United Nations Command delegation accepted their wording for Agenda Item 5; we had accepted it quickly. The Communists were all suspicion. Where had they blundered? Nam Il asked for a forty-minute recess.

At the end of the recess, Nam Il asked that the recess be extended until the following day. On the following day, the Communists again extended the recess for another twenty-four hours.

When we met again with the Communists, Nam Il delivered a long statement full of escape clauses affecting his own proposal. At the end of this, still apparently uncertain, Nam Il proposed that staff officers be directed to discuss Item 5 further. Colonels Chang and Kinney were delegated to this task, but I instructed Kinney not to agree to any substantive change in the Communists' proposal. No further meetings were ever held on this subject.

The Communists did not actually welsh on their own proposal regarding Item 5, but I think it is obvious they thought long and hard about doing so. Though they had submitted their proposal in writing and argued for it in vigorous fashion, none of us in the United Nations Command delegation would have been at all surprised if they had denounced it utterly when our meetings were resumed. Perhaps the moral of this story is:

Never trust a Communist promise, however given:
Trust only Communist deeds.

I SUBMITTED to the Communists on 28 April what we called our final package proposal. It was a complete armistice agreement containing 62 paragraphs, 61 of which had been originated by the UN delegation.

I told the Communists that that was the end of negotiating; thenceforward the question was simply one of take it or leave it. For our part, there were to be no more concessions, no changes in the draft armistice agreement. This was it. *[The foregoing is a sample of Communists at work. Needless to say, they continued their delaying tactics until a firm stand ultimately brought them to an agreement, as Admiral Joy knew it must.]*

Joy's Statement to Communists

In bidding farewell to the Communists on 22 May 1952, Admiral Joy had this to say:

At the first Plenary Session of our two delegations, on the 10th of July of last year, I said, "The success or failure of the negotiations begun here today depends directly upon the good faith of the delegations present." These words constituted both a promise and a warning—a promise of good faith by our side and a warning that we would expect good faith from your [the Communist] side. Today, at the 65th Plenary Session, my opening remarks on the subject of good faith are more than ever pertinent.

It has become increasingly clear through these long-drawn-out conferences that any hope that your side would bring good faith to these meetings was forlorn indeed. From the very start, you have caviled over procedural details; you have manufactured spurious issues

and placed them in controversy for bargaining purposes; you have denied the existence of agreements made between us when you found the fulfillment thereof not to your liking; you have made false charges based on crimes invented for your purposes; and you indulged in abuse and invective when all other tactics proved ineffective.

Through a constant succession of delays, fraudulent arguments, and artificial attitudes you have obstructed the attainment of an armistice which easily lay within our grasp had there been equal honesty on both sides of this conference table.

Nowhere in the record is there a single action of your side which indicates a real and sincere desire to attain the objective for which these conferences were designed. Instead, you have increasingly presented evidence before the world that you did not enter these negotiations with sincerity and high purpose, but rather that you entered into them to gain time to repair your shattered forces and to try to accomplish at the conference table what your armies could not accomplish in the field.

It is an enormous misfortune that you are constitutionally incapable of understanding the fair and dignified attitude of the United Nations Command.

Apparently you cannot comprehend that strong and proud and free nations can make costly sacrifices for principles because they are strong; can be dignified in the face of abuse and deceit because they are proud, and can speak honestly because they are free and do not fear the truth. Instead, you impute to the United Nations Command the same suspicion, greed, and deviousness which are your stock in trade. You search every word for a hidden meaning and every agreement for a hidden trap. It would be charitable for me to say that you do these things by instinct, but you are people of intelligence and it is probably truer to say that you do these things with purpose and design.

From the very first, the United Nations Command has had but one objective in Korea: To bring an end to the Korean war so that a permanent and enduring peace might be established as quickly as possible. This has been the precise objective of the United Nations Command delegation in these negotiations. This is what we meant by good faith on our part. You have but to examine the record to see the many evidences of our restraint, our constructive suggestions, our willingness to conciliate and compromise, and our patience. There is very little evidence of similar contributions by your side.

As an answer to the question, "Which side has brought good faith to these meetings?" nothing could be more impressive than a comparison of the actions of the two delegations during our ten months of these conferences. They are as different as day and night. No amount of propaganda, however oft repeated, can hide your ignoble record. That these meetings have continued this long and that we have, after a fashion, resolved our differences to the point where only one major issue remains is testimony to the patience and dedication of the United Nations Command.

Now our negotiations have come to the point where the prisoner-of-war issue stands as a formidable barrier to the accomplishment of an armistice. Casting aside any pretense of humanity, you have made the demand that the United Nations Command must return to your side all the prisoners of war in its custody, driving them at

the point of a bayonet if necessary. You even have the colossal impertinence to document your position by referring to the Geneva Convention.

What could be more ironic than your attempt to found your inhuman proposition upon an international agreement whose purpose is to defend and protect the unfortunate victims of war? These are strange words for you to employ. You who have denied the International Red Cross access to your prisoners-of-war camps, who have refused to furnish lists of prisoners to the Prisoner of War Bureau, and who cannot even account for over fifty thousand United Nations Command soldiers whom you officially boasted as having in your custody before the Korean war was nine months old.

After months of conciliation, of meeting you more than halfway on issue after issue, the United Nations Command has told you with all firmness and finality that it will not recede from its position with respect to the prisoners of war. On the 28th of April we offered you an equitable and specific solution to the issues remaining before us.

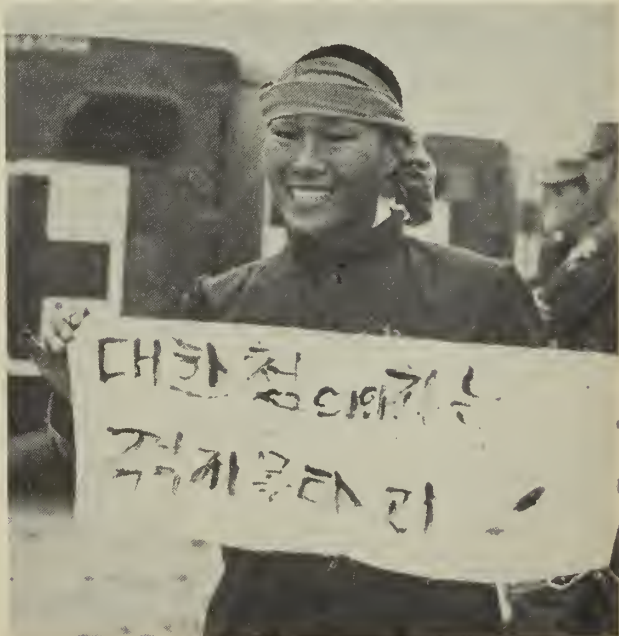
We told you then, and we repeat now, that we firmly adhere to the principles of humanity and the preservation of the rights of the individual. These are values which we will not barter, for they are one and the same with the principles which motivated the United Nations Command to oppose you on the battlefield. No amount of argument and invective will move us.

If you harbor the slightest desire to restore peace and to end the misery and suffering of millions of innocent people, you must bring to the solution of this issue the good faith which, as I said at our first meeting, would directly determine the success or failure of our negotiations.

[In effect, if the Communists wanted peace they could prove it by deeds. They had demonstrated that promises meant nothing to them.]

[There is a parallel to this situation which exists in the world today.]

SOUTH KOREAN returnee from communist POW camp displays banner asking them not to sacrifice the country.



UNDERSTANDING the changing tactics of the cold war and communism's long range objectives, methods and strategy, is important to all Navy and Marine Corps men. The books listed below are among the many on these subjects which may be in your ship and shore station libraries. How many have you read?

This is not by any means a complete list of the books on the subject. But the number of titles indicates that a large number of people have been thinking about the cold war and related aspects of it. And among them are some of our best brains.

Inclusion of books on this list does not constitute an endorsement of the facts, opinions or concepts presented. You will find a wide diversity of ideas and conclusions which every citizen today should consider. Mental preparedness is vital too—especially in these times. Your Information and Education Officer also has good material on the cold war.

The Communist World—Russia

Cressey, G. B.; *How Strong Is Russia?* (Syracuse, 1955.) The geographical basis of Soviet power.

Dallin, David; *The Changing World of Soviet Russia*. (Yale, 1956.)

Fainsod, Merle; *How Russia Is Ruled*. (Harvard, 1954.)

Long, John; *Modern Russia*. (Duckworth, 1957.) A good introduction to Russian government.

Moorehead, Alan; *The Russian Revolution*. (Harper, 1958.) A popularly written account of the communist seizure of power.

Pares, Bernard; *History of Russia*. (Knopf, 1953.) A comprehensive survey from earliest times to 1947.

Pasternak, Boris; *Dr. Zhivago*. (Pantheon, 1958.) A Nobel prize-winning novel of the revolution.

Rauch, George; *History of Soviet Russia*. (Praeger, 1958.)

Schwartz, Harry; *Russia's Soviet economy*. (Prentice, 1954.)

Treadgold, D. W.; *Twentieth Century Russia*. (Rand McNally, 1959.)

Vernadsky, George; *History of Russia*. (Yale, 1954.)

The Communist World—China

Cressey, G. B.; *Land of the 500 Million*. (McGraw, 1955.) A geography of China.

Goodrich; *Short History of the Chinese People*. (Harper, 1959.)

Rowe, D. M.; *Modern China: A Brief History*. (Van Nostrand, 1959.)

Stevenson, William; *Yellow Wind*. (Houghton-Mifflin, 1959.) Red China and Asia today as viewed by a perceptive reporter.

Tang, P. S. H.; *Communist China Today*. (Praeger, 1959.) Domestic and foreign policies.

Walker, R. L.; *The Continuing Struggle*. (Athene Press, 1958.) Communist China and the Free World.

Walker, R. L.; *China under Communism: The First Five Years*. (Yale, 1955.)

Wint, Guy; *Dragon and Sickle*. (Praeger, 1959.) A panoramic view of the communist revolution in Asia.

Communists in Eastern Europe

Lasky, M. J.; *The Hungarian Revolution*. (Praeger, 1957.)

Stowe, Leland; *Conquest by Terror: The Story of Satellite Europe*. (Random, 1952.) How the communists worked in central Europe.

Wolff, R. L.; *Balkans in Our Time*. (Harvard, 1956.) A broad survey of history and recent developments.

Zinner, Paul E., ed.; *National Communism and Popular Revolt in Eastern Europe*. (Columbia, 1956.)

Communists' Methods and Doctrines

Aron, Raymond; *The Century of Total War*. (Doubleday, 1954.) An analysis of 20th century political, economic and ideological forces.

The Communist Conspiracy; Strategy and Tactics of World Communism. (U. S. Congress, 1956.)

Communist Propaganda; A Fact Book, 1957-58. (USIA, 1958.)

Dallin, D. J.; *Soviet Espionage*. (Yale, 1955.)

Djilas, Milovan; *The New Class*. (Praeger, 1957.) A critique by a Yugoslav Marxist.

Fearey, R. A.; *U. S. versus the U.S.S.R.* (Public Affairs, 1959.) Insights into the basic differences between America and Russia.

Hendel, Samuel, ed.; *The Soviet Crucible*. (Van Nostrand, 1958.) Communist theory described by

Many of these books are available in your ship or station library. Don't let the titles fool you. You'll find these books interesting and informative.

Marx, Lenin, Trotsky, Stalin and Khrushchev and commentaries by other scholars.

Hoover, J. E.; *Masters of Deceit*. (Holt, 1958.) The communist underground in America.

Hunt, N. C.; *The Theory and Practice of Communism*. (5th ed., Macmillan, 1957.) An excellent short presentation of communist teachings.

Ketchum, R. M.; *What is Communism?* (Dutton, 1955.) A pictorial survey.

Lin Yutang, *The Secret Name*. (Farrar, 1958.) A readable account of communism's spread.

Overstreet, H.; *What We Must Know about Communism*. (Norton, 1958.) A summary of Marxist philosophy, Russian policies and an appraisal of their significance for Americans.

Salvadori, Massimo; *The Rise of Modern Communism*. (Holt, 1952.)

Wetter, G. A.; *Dialectical Materialism*. (Praeger, 1958.) A scholarly study of Marxist-Leninist philosophy.

Psychological Warfare

Hunter, E.; *Brainwashing*. (Farrar, 1956.) The story of the men who defied it.

Hunter, E.; *Brainwashing in Red China*. (Vanguard, 1956.)

Kinhead, E.; *In Every War But One*. (Norton, 1959.) Experiences of prisoners of war in Korea.

Linebarger, Paul; *Psychological Warfare*. (Association of U. S. Army, 1954.)

Defense in the Cold War

Boyd, Andrew; *An Atlas of World Affairs*. (Praeger, 1959.) Maps and brief information on vital problem areas.

Brodie, Bernard; *Strategy in the Missile Age*. (Princeton, 1959.) A re-thinking of strategic warfare and the place of air power.

Eliot, G. F.; *Victory without War, 1958-1961*. (USNI, 1958.) Points up the importance of the nuclear-powered carrier in our defense forces.

Garthoff, Raymond; *Soviet Image of Future War*. (Public Affairs, 1959.) A synthesis of Russian strategy and doctrine as they affect military policy and armed forces organization.

Garthoff, Raymond L.; *Soviet Strategy in the Nuclear Age*. (Praeger, 1958.) Forecast of Russian strategy by an authority on Soviet military doctrine.

Harriman, A.; *Peace with Russia*. (Simon, 1959.)

Kissinger, H. A., *Nuclear Weapons and Foreign Policy*. (Harper, 1957.) A reappraisal of American military and foreign policy under the impact of the nuclear age.

Laqueur, W. Z., ed., *Communism and Nationalism in the Middle East*. (Praeger, 1957.)

Miksche, F. O., *Failure of Atomic Strategy*. (Praeger, 1959.) An analy-

sis of NATO strategy and western policy against communist aggression.

Morgenstern, Oskar; *The Question of National Defense*. (Random, 1959.) A searching examination of our military policies and a call for strategic reform with an oceanic system.

Saunders, M. G., ed., *The Soviet Navy*. (Praeger, 1958.)

Strausz-Hupe, Robert and others; *Protracted Conflict*. (Harper, 1959.) Communism's challenge to the western alliance, its power, purposes and methods.

Welton, H., *The Third World War: Trade and Industry—The New Battleground*. (Philosophical, 1959.) Stresses the importance of Russian economic penetration.

On Another Front: Navy Medical Units and Chinese Doctors Develop Vaccine to Fight Trachoma

A Navy medical research unit in the Republic of China, working with Chinese doctors, has developed a vaccine which could be important in halting the spread of trachoma—an infectious eye disease that affects more than 400 million people.

The development was announced jointly in Washington, D. C., and Taipei, Taiwan, by RADM Bartholomew W. Hogan, Surgeon General of the Navy, and Dr. J. Thomas Grayston, Assistant Professor of Medicine at the University of Chicago, who is on the staff of Naval Medical Research Unit NAMRU No. 2 in Taipei.

At the annual meeting of the Formosan Medical Association in Taipei, Dr. Grayston told the story of a year's work by three American and two Chinese doctors, who have successfully isolated several strains of trachoma virus, reproduced the disease in human volunteers and developed a vaccine safe for human use. Although scientists have already isolated the trachoma virus in other countries, there have been no other reports on a successful vaccine.

Besides Dr. Grayston, the two other Americans who worked on the project were Dr. R. L. Woolridge of Lake Bluff, Ill.; and Dr. P. B. Johnston of Chicago, both of whom are attached to NAMRU 2. The unit is commanded by CAPT. R. A. Phillips, MC, USN. The two Chinese doctors were Y. F. Yang, Professor of Ophthalmology at the National Taiwan University College of Medicine, and S. P. Wang, a staff member of NAMRU 2.

Although Dr. Grayston did not make any predictions as to the ultimate success of the vaccine, he did reveal that tests conducted to date have been encouraging. The

vaccine could have tremendous potential as a preventive, and perhaps also as a means of curing the illness, which often results in total blindness.

The medical unit's studies began in October 1958. The first step was to isolate trachoma virus. With the assistance of Chinese health authorities, the unit obtained scrapings from the undersurface of the upper eye lids of children in Taiwan who were infected with the disease. Then, through cultures in chicken eggs, Dr. Wang isolated viruses thought to cause trachoma.

The next step was to see if these virus strains would reproduce trachoma. Initial experiments, using Taiwanese monkeys, were conducted with the help of Dr. Yang. These tests produced an infection which resembled the early stages of the human disease, but the infection did not progress to the formation of scar tissue, as it does in humans.

Since the World Health Organization's committee on trachoma requires that a virus must reproduce trachoma in human volunteers before it can be accepted as the cause of the disease, it was necessary to obtain volunteers for subsequent tests. This problem was presented to the superintendent and students of the Taipei Blind and Mute School. Six students and one instructor, realizing the potential importance of the tests, volunteered for the next phase of the studies.

Four of the volunteers were given trachoma virus in various dilutions, and three were given control material. The virus, even when diluted 10,000 times, promptly produced infection in the human eye. Typical inclusion bodies of trachoma were found within six days, and the virus was reiso-

lated in eggs. As the infection progressed, it became obvious that trachoma had been reproduced. None of the controls contracted the disease, although two of them later were deliberately infected.

Dr. Woolridge, an immunologist, then attempted the preparation of an effective vaccine. Using monkeys as test animals, he prepared several vaccines which were found to protect the monkeys from infection with the virus. The investigators next gave the vaccines to themselves, and demonstrated that side reactions were no more severe than those from commonly used vaccines.

Again there was a need for volunteers, this time for the vaccine studies, and the entire freshman class at the National Defense Medical College in Taipei—150 strong—rose to the occasion. All of them ultimately received two doses of the vaccine without adverse reaction. These studies showed that the vaccine produces antibodies against the virus—an encouraging finding since the natural disease produces antibodies only irregularly.

After that the group began a study of the protective and curative value of the vaccine in 450 children of the Long Ching District along the west coast of central Taiwan.

According to Dr. Grayston, it will take at least another year to evaluate [completely] the vaccine tests.

The importance of the NAMRU studies was emphasized by a world health authority who has said:

"Should these tests prove successful, and the vaccine now being used found capable of preventing the disease and curing young persons afflicted with it, one of the foremost achievements in the medical history of the world will have been recorded."

LETTERS TO THE EDITOR

About Those Uniform Suggestions

SIR: Apparently H. E. K., YN3; G. H. H., YN2 (April 1959) and M. L. H., YN2 (October 1959) have had very little sea duty. Their ideas about a new enlisted man's uniform are just not practical aboard ship. I would like to put forward these questions for their consideration.

What kind of vessels are equipped to launder, tailor and in general maintain uniforms of the type suggested? Also, what ships have locker and stowage space to handle these uniforms? It's hard enough now to keep a personal locker squared away and shipshape with the present uniform.

Maybe these men would like the Navy Department to re-design all their ships to accommodate everyone's personal needs and forget their primary mission—to stay in a condition of combat readiness.—J. M. S., PN1, USN.

• Much has been said about a change from all-wool uniforms for enlisted personnel to ones of synthetic material (H. E. K.'s suggestion) and from the present uniforms to a chief-type uniform (G. H. H.'s idea).

These ideas have been kicked around by the Uniform Board at this Bureau

This section is open to unofficial communications from within the navy service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

and some new materials have been tested.

When a material is found that can stand up to shipboard laundering and is considered superior to the present material, we feel sure a change in material will be made. The same goes for the design. When one is found that is considered better than that now worn, yet is practical, a change will probably be made.

In the meantime, we're proud of the uniform we have, and wear it that way—proudly.—Ed.

Duties of GMs and FTs

SIR: I have been in some ships where the GMs take care of all the power drives of 3-inch/50 style and the 5-inch/38 mounts, including the receiver-regulators. Here, the FTs would take care of the firing controls. On other ships, the FTs would have greater responsibility.

Seems to me that, some time about 1953, there was an instruction issued which required the GMs to take over all power drives and rec-reg, but no one around here seems to know where to find the instruction or, for that matter, who issued it. Some gunnery officers agree with me that there was such an instruction; others say they never heard of it.

What do you know about it?—T. L. S., FT1, USN.

• Your question points up a Navy-wide trend that is affecting not only the FT and GM ratings but others as well. As electrical and electronic features are incorporated into more and more equipment, the ratings maintaining the equipment must begin to learn more and more about these subjects.

Also, ratings that already happen to know the most about electronics are called upon to help out their "non-electronic" shipmates. For example, when radar first came out, it was for search purposes only, and fire controlmen did not need to know it; at that time only the ET was trained in radar. Then, fire control radar came out, and the ETs had to help the FTs.

As time goes on, now, the ET is fading out of the fire control radar picture; likewise, it is hoped that enough GMs will qualify in electricity and electronics so that the FTs will fade out of the power drive picture and all parts of all mounts (and missile launching systems) can and will be maintained by GMs.

However, not enough time has elapsed to insure that all GMs have attended the necessary schools. Until they all have been so trained and qualified, the FT cannot completely fade out of the picture and may have to be ready to step in and help those of his GM shipmates who may not yet have qualified in the more complex features of the newer gun mounts and missile launchers.

Your attention is invited to the "Manual for Advancement in Rating" (NavPers 18068). Under GM 102, Maintenance and/or Repair, Item 25, and under FT 202, Maintenance and/or Repair, Item 16 and 18, you will note that these paragraphs indicate that qualifying to maintain the hydraulic power drives and receiver-regulators (5"/38) is the responsibility of the GM and that the FT must qualify to maintain the electric/electronic power

Antarctic Duty

SIR: I am interested in finding out where in Antarctica a personnel man third or second class may expect to be assigned in connection with the Antarctica Support Activities. Are all records and accounts maintained at the individual stations?—R. R. B., PN3, USN.

• In addition to the wintering-over allowance of one YNC and one PN2, Air Development Squadron Six normally furnishes one YN or PN to winter over. This past year one YNC, one PN1 and one PN2 wintered over at NAF McMurdo Sound where the majority of personnel are stationed.

Some of the summer support group, which includes one PNC, one PN1, one PN2 and one PN3, deploy to New Zealand and the Antarctic during the summer support phase, but as the plans and requirements for this phase vary from year to year, it is impossible to predict how many PNs will deploy and what their assignments will be.

All records and accounts of the personnel are maintained at the individual stations.—Ed.

Advancement Qualifications

SIR: In 1955, I was discharged as BT1. In 1958 I reenlisted and was given the rate of BT3.

Can I use the time I spent in rate during my first enlistment for advancement purposes now?

Also, must I again complete the training courses for advancement to the next higher rate?—C. W. B., BT3, USN.

• The time in rate you served during a previous enlistment, which is not part of your present continuous service, cannot be used for advancement purposes now.

On the other hand, the professional training courses you took during your first enlistment do meet the requirements for advancement. The military requirements area is another matter. A new course in military requirements has superseded the old General Training Course for POs, and must be taken to qualify for advancement.

If the professional courses had also been revised, the new course would have to be retaken too, whether you had remained on continuous active duty or not.—Ed.

drives (3"/50); the FT must also know the operating principles of all types of power drives.

The most logical answer would seem to be: on what equipment are the two ratings trained? The GM schools teach the hydraulic power drives and receiver-regulators; the FT schools do not. Both the GM and FT schools teach the Mark 35 amplidyne power drive (3"/50). The Mark 35 power drive is a recent addition to the GM school curriculum and has just been deleted from the FT "B" school curriculum.

At present, there is no clear-cut division of responsibility for the maintenance of these particular power drives. The rating trained for, and the one which should be most capable of maintaining the 5"/38 power drives is the GM. The rating which has had the training for and which should be the most capable of maintaining the 3"/50 power drives is the FT, with a limited number of GMs equally qualified.—Ed.

Making a Move

SIR: I have been unable to get the following question answered locally.

Here's the situation: When I was transferred from the U.S. Naval Hospital, Beaufort, S.C., to *uss Harwood* (DDE 861) home-ported at Newport, R.I., I did not move my family or HHE from Beaufort to Newport.

Now I have orders to the National Medical Research Institute, Bethesda, Md. Since it is about 200 miles further from Beaufort to Bethesda than it is from Newport to Bethesda, will the Navy pay for the entire move?—R. N. P., HMC, usn.

• *The Navy will pay.* "Joint Travel Regulations" allowed you to move your household effects to Newport from Beaufort. It also allows you, however, if you didn't take your family with you to Newport, to ship your household effects and family from the previous duty station—in your case Beaufort—to your next duty station, Bethesda.

When you make application you will need copies of your orders from Beaufort to *uss Harwood* and from *Harwood* to Bethesda.—Ed.

Banshee Still Flying

SIR: Your article "How Did it Start" in the December issue is erroneous in that it announced—prematurely—the demise of the *Banshee*.

This reserve training detachment operates 12 of these aircraft in support of Marine Air Reservists, NAS Oakland, in their support of the Naval and Marine Air Reserve training program, also flies—very actively—some 40 F2H-3's and 4's.

The planes may be aging, but they are being well utilized to keep up the proficiency of approximately 200 Reserve aviators; thus, they are hardly "out of service."



ANNUAL AFFAIR—Powered by tugs instead of sails, *USS Constitution* recently took her yearly turn-about cruise to keep masts and yardarms from warping.

I believe that the CIC School in Glynco, Ga., also operates a number of *Banshees*.—LCOL B. J. Maheson, USMC.

• *We had no intention of counting out the Banshee prematurely, but when we said the last "operational" Banshees were going out, we meant "operational" to mean in fleet squadrons.*

What we should have said, according to the office of CNO, was that there are no longer Banshee squadrons in either the Navy carrier air groups or Marine Corps Fleet squadrons.

You are right, however, in saying there are still Banshees operating at Oakland, Norfolk, and Glynco.—Ed.

Washington Navy Yard Academy

SIR: In your October 1959 issue there was a "Way Back When" on page 47 entitled "How Naval Academy Got Its Start." I think a post-script could be added to this, and call to your attention NavPers 15807—*The History of the Chaplain Corps, United States Navy, Volume One.*

Beginning on page 18 there is a section headed, "The First Academy for Midshipmen." It tells of the work of Chaplain Robert Thompson, who conducted an academy for midshipmen at the Washington Navy Yard and on board several frigates.

A school was set up aboard *uss Congress*, and the official interest in it is indicated by this quote from a letter written to Chaplain Thompson on 24 Jan 1804 by Secretary of the Navy Robert Smith.

"You will report to me the names of the Midshipmen who are at this time receiving instruction from you at this place, the time when they severally commenced their studies under you; the days they have each attended and your opinion of the progress they have respectively made."

Many men in our early chaplaincy

were able teachers as well as being ordained clergymen. Chaplain Thompson was in reality a naval mathematician, and he asked to have his designation changed accordingly. However, when he died in 1810 he was still considered a chaplain by the Navy.

I believe the roots of our present Naval Academy can be traced to the classes Thompson held aboard *Congress* while she was moored at the Washington Navy Yard.

Another important figure in the establishment of a school for training our midshipmen was Chaplain George Jones. He was one of the eight members of the first academic board when the Naval Academy was formally opened in the fall of 1845.

Since the Chaplain Corps has just celebrated its 184th birthday, this seems an appropriate time to salute these men who helped make an important part of our proud history.—John D. Gould, LT, CHC, usn.

• *Thanks. We appreciate your telling us about these early-time Navy-men. We're always on the outlook for more historical material.*—Ed.

Tribute to Little Ships on the Inland Seas

SIR: In reading the article, "The Fleet Sails the Inland Seas," in the September 1959 issue of ALL HANDS, I noted an omission of considerable importance to the crew of *uss Preserver* (ARS 8). The article does not mention *Preserver* and the work she did while attached to Task Force 47.

In the same issue, the article entitled, "It's Tops—Navy 'Seawayman-ship'" tells of *uss Putnam* (DD 757) putting into Milwaukee for repairs to her propeller, but it does not mention that these repairs were made by *Preserver*, as were repairs of the same nature on *uss Haynsworth* (DD 700) and *Joseph P. Kennedy, Jr.* (DD 850).

Altogether, *Preserver* completely changed five propellers on the three ships. All the work was done underwater by divers using the ship's salvage booms. Two ships—one at anchor and one moored at the fuel pier—were repaired in Milwaukee. The third repair job was done at Rochester, N. Y.

Preserver left her home port, Norfolk, Va., on 10 Jun 1959—and after ports of call at Montreal, Canada; Detroit, Mich.; Milwaukee, Wis.; Port Huron, Mich.; and Rochester—returned to Norfolk on 7 August. Besides failing to mention *Preserver*, the Inland Seas issue left out a number of AOG and YTB craft.

Perhaps *Preserver* was not technically considered part of Task Force 47, although she sailed under the command of Task Force 47.9. If so, that could have been the reason for these oversights. At any rate, she deserves a full share of the credit for the success of Operation Inland Seas.—John J. Mellon, MR2, USN.

• *It's the same old story—the ball carrier gets the glory, and the guys*

who run interference are forgotten.

We think Bill Ritter, JO2, USN, summed up the situation pretty well when he wrote this little item for us:

"No Complaints—But . . .

"Once upon a time there were seven little service craft.

They were in the Navy.

One day naval authorities decided to hold a big exercise called Operation Inland Seas.

Twenty-eight sleek, modern warships were selected to form a special task force. The seven little service craft were picked to go along too. This made them very happy, for at last they would have a chance to show everyone how important they were to the Navy.

Everywhere the sleek warships went there was cheering and parties and dancing. Crowds of people lined the shore to watch the big ships steam proudly by. But no one paid any attention to the seven little service craft."

We will though.

*Congratulations on a job well done, *uss Preserver* (ARS 8), *uss Penobscot* (ATA 188), *uss Tuscola* (YTB 280), *uss Coatopa* (YTB 382), *uss Shahaska* (YTB 533), *uss Takos* (YTB 546), and *YO 205*.*

*Incidentally, when a grounded merchantman in the Iroquois Lock threatened to halt the movement of ships for some time, *Penobscot* and *Coatopa* saved the day by freeing the ship and clearing the traffic lane.*

Maybe we've gotten so used to seeing these little fellows do a fine job that we take them for granted.—Ed.

Eligible for Viet-Nam PUC

SIR: The June 1959 issue of ALL HANDS (Letters to the Editor, p. 47) lists the ships and units eligible for the Viet Nam Presidential Unit Citation "Ribbon of Friendship." Shouldn't *uss Begor* (APD 127) be listed? She was the first ship to enter the Indo-China area.—M.A.O., HMC, USN.

SIR: I noticed that the June 1959 edition of ALL HANDS (Letters to the Editor, p. 47) listed eligibility dates for several ships which rated the Viet-Nam Presidential Unit Citation "Ribbon of Friendship."

Does any other TransDiv unit rate this award? I served in *uss Magoffin* (APA 199) in that area around that time. We did evacuate Viet Nam citizens.—B. L. M., RMSN, USN.

• *Evidently in answering that letter in the June 1959 issue by printing a partial list of the eligibles for this award*

we only compounded the confusion.

Here then is a complete list of all units eligible for the award, and the eligibility dates in 1954 for each:—Ed.

Ships and units operating under

Task Force 90:

<i>uss Algol</i> (AKA 54)	15 Aug- 9 Sep
<i>uss Andromeda</i> (AKA 15)	22 Aug-16 Sep
<i>uss Atlas</i> (ARL 7)	28 Aug-26 Sep
<i>uss Bayfield</i> (APA 33)	21 Aug- 9 Sep
<i>uss Begor</i> (APD 127)	16 Aug-30 Sep
<i>uss Calvert</i> (APA 32)	22 Aug-30 Sep
<i>uss Cavallaro</i> (APD 128)	22 Aug-30 Sep
<i>uss Comstock</i> (LSD 19)	22 Aug-30 Sep
<i>uss Epping Forest</i> (LSD 4)	22 Aug-27 Sep
<i>uss Estes</i> (AGC 12)	18 Aug-30 Sep
<i>uss Knudson</i> (APD 101)	22 Aug-30 Sep
<i>uss LCU 531</i>	23 Aug-27 Sep

<i>uss LCU 539</i>	22 Aug-30 Sep
<i>uss LCU 810</i>	22 Aug-27 Sep
<i>uss LCU 877</i>	22 Aug-30 Sep
<i>uss LCU 1236</i>	21 Aug-30 Sep
<i>uss LCU 1273</i>	22 Aug-27 Sep
<i>uss LCU 1374</i>	22 Aug-27 Sep
<i>uss LCU 1387</i>	23 Aug-27 Sep
<i>uss LCU 1396</i>	23 Aug-27 Sep
<i>uss LCU 1421</i>	22 Aug-30 Sep
<i>uss LCU 1446</i>	21 Aug-30 Sep
<i>uss LCU 1451</i>	21 Aug-30 Sep
<i>uss LST 516</i> (Calaveras County)	27 Aug-30 Sep
<i>uss LST 692</i> (Daviess County)	26 Aug-30 Sep
<i>uss LST 758</i> (Duval County)	26 Aug-26 Sep
<i>uss LST 772</i> (Ford County)	27 Aug-30 Sep
<i>uss LST 822</i> (Harris County)	26 Aug-30 Sep
<i>uss LST 825</i> (Hickman County)	26 Aug-30 Sep
<i>uss LST 845</i> (Jefferson County)	26 Aug-30 Sep
<i>uss LST 846</i> (Jennings County)	27 Aug-26 Sep
<i>uss LST 855</i> (Kent County)	27 Aug-30 Sep
<i>uss LST 887</i> (Lawrence County)	27 Aug-26 Sep
<i>uss LST 901</i> (Litchfield County)	27 Aug-30 Sep
<i>uss LST 1080</i> (Pender County)	10 Sep-30 Sep
<i>uss LST 1096</i> (St. Clair County)	29 Aug-30 Sep
<i>uss LST 1148</i> (Sumner County)	29 Aug-26 Sep
<i>uss Magoffin</i> (APA 199)	22 Aug-16 Sep
<i>uss Menard</i> (APA 201)	15 Aug- 5 Sep
<i>uss Montague</i> (AKA 98)	14 Aug- 9 Sep
<i>uss Montrose</i> (APA 212)	16 Aug-16 Sep
<i>uss Mountrail</i> (APA 213)	12 Aug-11 Sep
<i>uss Skagit</i> (AKA 105)	22 Aug-20 Sep
<i>uss Sphinx</i> (ARL 24)	28 Aug-30 Sep
<i>uss Telfair</i> (APA 210)	15 Aug-16 Sep
<i>uss Tortuga</i> (LSD 26)	21 Aug-27 Sep
<i>uss Wantuck</i> (APD 125)	13 Aug- 4 Sep
<i>uss Whetstone</i> (LSD 27)	23 Aug-30 Sep
<i>LCUDIV 31</i>	1 Aug-30 Sep
<i>LCUDIV 33</i>	1 Aug-30 Sep
<i>LCURON THREE</i>	1 Aug-30 Sep
<i>LSDRON ONE</i>	1 Aug-30 Sep
<i>LSTDIV 12</i>	1 Aug-30 Sep
<i>LSTDIV 14</i>	1 Aug-30 Sep
<i>LSTDIV 33</i>	1 Aug-30 Sep
<i>LSTRON THREE</i>	1 Aug-30 Sep
<i>NAVBCHGRU ONE</i>	1 Aug-30 Sep
<i>BMU ONE</i> (Det)	
<i>BU ONE</i> (Det)	
<i>ACB ONE</i> (Det)	
<i>UDT TWELVE</i> (Det)	
<i>PHIBGRU ONE</i>	1 Aug-30 Sep
<i>TACRON ONE</i>	1 Aug-30 Sep
<i>TACRON THREE</i>	1 Aug-30 Sep
<i>TRANSDIV 13</i>	1 Aug-30 Sep

TRANSDIV 14	1 Aug-30 Sep
Helicopter Unit	1 Aug-30 Sep
Combat Camera Crew	1 Aug-30 Sep
Interpreters	1 Aug-30 Sep
MAAG, Indochina,	
Saigon, Viet-Nam	1 Aug-30 Sep
Office of Naval Attache	
and Naval Attache for	
Air, Saigon, Viet-Nam	1 Aug-30 Sep
Public Information	
Office	1 Aug-30 Sep
Preventive Medicine	
Unit	1 Aug-30 Sep

Ships and units operating under

Commander Task Group 92.3:

uss Ajax (AR 6)	23 Aug-20 Sep
uss Aludra (AF 55)	21 Sep-23 Sep
uss Caliente (AO 53)	23 Aug- 6 Sep
uss Castor (AKS 1)	9 Sep-19 Sep
uss Cimarron (AO 22)	5 Sep-30 Sep
uss Consolation (AH 15)	4 Sep-27 Sep
uss Derrick (YO 59)	9 Sep-30 Sep
uss Estero (AKL 5)	16 Sep-30 Sep
uss Faribault	
(AK 179)	9 Sep-30 Sep
uss Grapple (ARS 7)	26 Aug- 4 Sep
uss Haven (AH 12)	8 Sep-10 Sep
uss Karin (AF 33)	25 Aug-30 Sep
uss Passumpsic	
(AO 107)	23 Sep-24 Sep
uss Piscataqua	
(TAOG 80)	10 Sep-26 Sep
uss Reclaimer	
(ARS 42)	26 Aug-30 Sep
uss Sussex (AK 213)	25 Aug-19 Sep
uss Sharps (AKL 10)	10 Sep-30 Sep
uss Ute (ATF 76)	9 Sep-11 Sep
uss Uvalde (AKA 88)	28 Aug-10 Sep



HOPPING GOOD — Kangaroo and D. H. Carswell from USS Bremerton became pals on visit to Australia.

uss YW 130	28 Aug-30 Sep
Military Sea Transportation Ships and Units:	
USNS Fentress	
(TAK 180)	7 Sep-30 Sep
USNS Gen Black	
(TAP 135)	13 Sep-30 Sep
USNS Gen Brewster	
(TAP 155)	10 Sep-30 Sep
USNS Gen Howze	
(TAP 134)	10 Sep-30 Sep
USNS Hennepin	
(TAK 187)	7 Sep-30 Sep

USNS Marine Adder	
(TAP 193)	11 Sep-30 Sep
USNS Marine Lynx	
(TAP 194)	13 Sep-30 Sep
USNS Muskingum	
(TAK 198)	8 Sep-30 Sep
USNS Pembina	
(TAK 200)	9 Sep-30 Sep
Military Sea Transportation	
Office/Naval Control of	
Shipping Office, Saigon,	
Viet Nam	1 Aug-30 Sep

Merchant Time Chartered Ships:

ss Beauregard	1 Sep-14 Sep
ss George Culucundis	8 Sep-30 Sep
ss Hawaiian Bear	10 Sep-14 Sep
ss Hurricane	7 Sep-15 Sep
ss Jose Marti	13 Sep-30 Sep
ss Seaborne	1 Sep-13 Sep
ss Sea Splendor	6 Sep-15 Sep

Two-Time Medal of Honor Men

SIR: In the Medal of Honor article in the December 1959 ALL HANDS, you state that no man has won two such medals since 1915.

If my fading memory doesn't fail me, Major Louis Cukela, USMC (deceased) won one in Haiti about 1915 and one more in World War I with the Fifth Marines in France.

Besides that, Lieutenant John McCloy, USN, also won two. I am not so sure about McCloy, but I believe he won one at Vera Cruz about 1914. The other one I'm a bit hazy about.

I am fairly certain about Cukela's medal because Teddie Roosevelt, Jr.,

These States Have Different Hand Signals for Motor Vehicles

SIR: As I was scanning your July issue I noticed an important omission in your centerspread on traffic safety.

In the section headed, "Signal for Stops and Turns," you did not show the right turn signal, used in some states, which is given with the arm straight out and the hand rotated.

I bring this to your attention because the last time I took a written driver's examination in New Jersey, the only question I missed was the one on the right turn signal. I said it was given as you show it, but the examiner told me the correct signal was: arm straight out with a waving motion to tell the car behind to pass.

For several weeks before the test I had seen drivers giving that sign, but it wasn't until then that I realized what they meant by it.—P. W. M., LCDR, USNR.

• Are you sure you haven't gotten your states confused, or that New Jersey hasn't changed its law since you took the test?

The right turn signal you describe is used in Massachusetts. New Jersey's hand signals are the same as the ones we showed: stop—arm out and down;

left—arm straight out with finger pointing; and right—arm out and up.

According to the American Automobile Association's Digest of Motor Laws—1958, only 10 states use hand signals other than those we pictured. These are:

Connecticut

Left turn—Hand moved up and down with finger pointing.

Right turn—Hand rotated.

Stop or slow—Arm straight out.

Delaware

Left turn—Same as shown in centerspread.

Right turn—Arm upward and moved from rear to front.

Stop or slow—Same as centerspread.

Kansas

Left turn—Same as centerspread.

Right turn—Same as centerspread or arm moved forward with sweeping motion.

Stop or slow—Same as centerspread.

Massachusetts

Left turn—Same as centerspread.

Right turn—Arm extended horizontally and hand rotated.

Stop or slow—Arm extended horizontally.

Michigan

All maneuvers—Left arm extended horizontally.

Mississippi

Left turn—Same as centerspread.

Right turn—Same as centerspread or moved from rear to front with a sweeping gesture.

Stop or slow—Same as centerspread.

Nevada

Any change of direction—Left hand extended.

New Hampshire

Left turn—Same as centerspread.

Right turn—Hand and arm extended horizontally with hand rotating.

Stop or slow—Same as centerspread.

Pennsylvania

All maneuvers—Arm extended horizontally.

Vermont

Left turn—Same as centerspread.

Right turn—Same as centerspread.

Stop or slow—Arm and hand straight out with palm to the front and all fingers extended.

As you can see from the number of variations in hand signals, it would have been impossible to show all the exceptions in our centerspread.—Ed.

Advancement While Hospitalized

SIR: On 10 Sep 1959, I was hospitalized and will remain in the hospital for six months to a year.

I passed the August exam for first class and was scheduled to be advanced on 16 Dec 1959.

Since I couldn't be advanced in rate while hospitalized, how long will the advancement authority be effective?—U. A. N., SK2, USN.

• *The advancement authority is valid for six months. After that, authority for advancement must be requested from the Chief of Naval Personnel. The people who handle these requests tell us that they are usually approved.*—ED.

wrote him up after World War I, and I served with him for a short time. We were also both patients at Bethesda before he died.—LCDR E. J. Markham, USN (Ret.)

• Your "fading" memory serves you well. Cukela did receive two Medals of Honor. One, however, was an Army Medal of Honor, not a Navy one.

In our article, we were discussing only Navy Medals of Honor. If you'll re-read the part of the article you mention, you'll find it says: "In nearly 100 years of existence . . . only nine men have earned the Navy Medal of Honor twice. No man has won two since 1915." The key word here, of course, is Navy.

Your recollection of McCloy is also accurate. He did win two Navy Medals of Honor. One was for duty at Vera Cruz in 1914, as you remember, but the other one was won while with the China Relief Expedition in June 1900.

Incidentally, both these MOH winners were enlisted men at the time they won the Medals.—ED.

Quarterdeck Ashore

SIR: In your September 1959 issue you published a letter from a Marine master sergeant who contended that a Naval and Marine Corps Reserve Training Center was no ship, and that therefore it should have no quarterdeck.

I would like to point out that Reserve Training Center are just that—Reserve Training Centers. If a quarterdeck is not simulated, the young Reservists miss much basic training in military courtesy.

When I was Senior Member, National Naval Reserve Inspection Board, the Commander Naval Reserve Training Command approved of the "quarterdeck" as a training situation for Reservists. The idea has been continued by the present CNRT, who is trying to get all Reserve Training Centers to improve the appearance and military smartness of the quarterdeck.—CAPT Howard C. Duff, USNR.

• *Thanks. We agree with you.*—ED.

Refuels Four Ships at Once

SIR: When I was reading the Letter to the Editor section of your August 1959 issue, I saw a letter from USS *Neosho* (AO 143), which claimed a "first" in refueling three ships simultaneously.

It was a nice try, but not good enough. In 1953, USS *Manatee* (AO 58), refueled four destroyers simultaneously.

CDR Brock was skipper at the time. We were laying to off the coast of Wonsan, Korea. We received a destroyer to port and one to starboard, and then one destroyer outboard of each of those.

We put hoses to the inboard ships and stretched another pair of hoses to the outboard ships. It was fairly simple.

Manatee crew of '53 may well have accomplished a first. Sorry, *Neosho*.—Vic Quirarti, Ex-QM3.

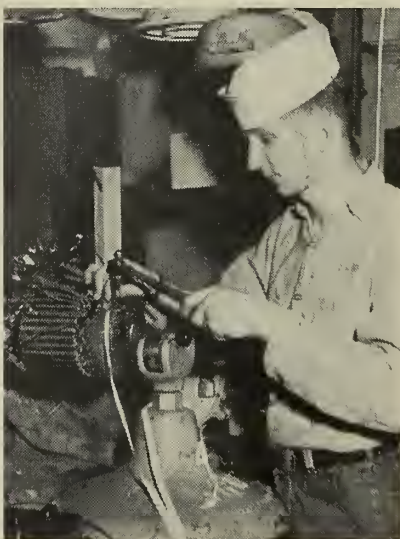
• *If you read the answer to that letter from Neosho, you'll know that Neosho's "first" claim was knocked for a hill of beans by an old geezer right here in the office.*

That same old man of the sea thought that four ships had been refueled simultaneously, but couldn't remember any particular case. Your letter seems to remove any doubt.

In the June letter we asked "Anyone out there want to try for four?" We guess the only appropriate way to end this one is: Anyone out there want to try for five?—ED.

Right Ship, Wrong Name

SIR: In the description of the cover picture of the September issue of All Hands, it was stated that the destroyer in the foreground was USS *Putnam* (DD 757). After careful study of the picture we believe we have irrefutable proof



WINDING UP—W. F. Sonier, electrician's mate, rewinds armature on engine repair ship USS *Tutuila* (ARG 4).

Fueling Five

SIR: I refer to *Neosho's* claim in the August issue.

There are four BM instructors now stationed here at Great Lakes who served with me in USS *Enterprise* (CV6). We all recall during the early days of World War II, that there were six ships abreast during fueling and rearming operations.

Whether fuel was pumped to all ships simultaneously, we don't recall. Neither do we recall the names of the ships involved. The tanker was believed to have been USS *Platte* (AO 24). On *Platte's* port side was *Enterprise* and two destroyers; on her starboard, a cruiser and a destroyer.—F. J. Barrett, BMC, USN.

• *Anyone want to try for six? Can Platte confirm?*—ED.

that this ship was USS *Charles R. Ware* (DD 865).

(1) *Ware* replaced *Putnam*, and berthed at the north face of the South Basin Wall in Chicago from 6 Jul 1959 to 8 Jul 1959. This berth was outboard of USS *DuPont* (DD 941) from which the picture was taken.

(2) There is a display board of seamanship equipment on the forecabin, identical to the one arranged by *Ware*.

(3) Just forward of the display board is our own "Black Sea Lily," a tenacious breed of vegetation grown on *Ware* especially for this cruise.

(4) The bloomer guards on Mount 51 are cut short, as they are on *Ware*.

(5) *Ware* received approximately 80 gallons of paint while in Chicago. Note the paint on the forecabin being struck below to the paint locker.

(6) Three of the sailors in the picture have been identified as *Ware* crew members. They are: Discoe, BM1, standing at ease on the left side of the anchor windlass. Broussard, BM2, is the tallest of three standing on the starboard side of the forecabin. (The other two are midshipmen from the Naval Academy.) Kimble, BM3, is standing just to the right of the hatch leading below decks.

It may be of further interest to note that *Ware* sailed in all five Great Lakes, passing through every major lock system. *Ware* also had the privilege of escorting Queen Elizabeth to Chicago, and is now the proud possessor of an autographed picture of the Queen and Prince Philip which was presented to the commanding officer.

We of *Ware* definitely concur with your choice of cover ships, especially since you chose the best of Task Force 47, but deeply regret that she wasn't given her proper due.—Commanding Officer, USS *Charles R. Ware* (DD 865).

• *Our apologies for the error, Captain. We agree your proof is impressive and, unless Putnam has something to*

contribute, conclusive. In any event, we're glad to set the record straight.

Here's what happened. When we took the photo, we couldn't see the hull number from Dupont. We asked one of the Dupont crew what ship it was, and, not knowing that Ware had replaced Putnam at this berth, he gave us the name of the ship that had departed the previous day.—Ed.

Three Months Plus

SIR: Many enlisted men and women in the regular Navy reenlisted more than three months early during 1946 and 1947 so they could take both reenlistment and terminal leave. (Terminal leave was leave which was carried on the books at the end of an enlistment.)

Since these discharges were solely for the purpose of immediate reenlistment, can the time remaining on the previous enlistment be counted as constructive service for transfer to the Fleet Reserve.

In my own particular case, I reenlisted for two years on 19 Nov 1945 and was discharged on 11 Aug 1947. I then reenlisted on 12 Aug 1947 for two more years and the remarks section of my Notice of Separation states, "Granted 40 days' terminal leave and 30 days' reenlisting leave"—J. R. H., DKC, USN.

• You must be discharged within three months of the end of your enlistment before you can count the time as constructive service.

In your case, because you reenlisted more than three months early, the time must be computed on a day-for-day basis. The three plus months that remained on your enlistment cannot be counted.

A complete explanation of constructive service and how it is computed was published on page 44 of the Octo-

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS MAGAZINE, Room 1809, Bureau of Naval Personnel, Navy Department, Washington, 25, D. C., four months in advance.

• *uss Buchanan* (DD 484)—A reunion for shipmates who served from 21 Mar 1942 through 2 Sep 1945 is tentatively scheduled for 21 March in New York City or Washington, D. C. For details, write to VADM Ralph E. Wilson, USN, Deputy Chief of Naval Operations (Logistics), Navy Department, Washington 25, D. C.

• *uss California* (BB 44)—A reunion is scheduled for 6, 7 and 8 June in Denver, Colo. For more information, write to Harold D. Bean, RR #1, Box 133A1, Sorento, Ill.

• *70th SEABEES*—The 17th annual reunion and smoker will be held

on 22 April at the Hotel Diplomat, New York City. For details, write to CAPT A. J. Benline, CEC, USNR, 270 Broadway, New York 7, N. Y.

• *MSTS Company 3-3*, Great Neck, L. I., N. Y.—A 10th anniversary celebration is scheduled for 10 February at Bradley Hall, Mitchell Air Force Base, Hempstead, Long Island, N. Y.

• *uss Uhlmann* (DD 687)—All who served on board during World War II who are interested in holding a reunion in Chicago in the summer of 1960 may write to Robert B. Hicks, 2887 Greenwood Ave., Highland Park, Ill.

• *U. S. Naval Hospital*, Bainbridge, Md.—A reunion is planned for those who served at USNH Bainbridge between 1 Jan 1953 and 1 Jan 1957. For information, write to James McKenna, 53 Noxon St., Poughkeepsie, N. Y.

ber 1959 ALL HANDS. It may answer other questions you might have about constructive service.—Ed.

Recruiting Service Badge

SIR: In reference to the letter from C.R.M., EMC, USN, (ALL HANDS, November 1959) here is more on the subject of Recruiting Service brassards.

Our recruiting district has discarded brassards, and is now using a "U. S. Navy Recruiting Service" badge, which has the individual recruiter's name engraved on it.

These badges, clipped on the left breast pocket below the ribbons, are neat and smart in appearance. They quickly identify the wearer by name as a member of the U. S. Navy Recruiting Service. They are easily removed and do not present an unsightly

appearance. They do not slip, nor do they wrinkle the uniform. Made of a white crystalline plastic, they are four inches long and one and one-fourth inches wide.

While the cost of producing these badges is higher than the brassards, they retain their neat appearances, while the brassards become frayed and soiled and must be replaced frequently.—A. C. J., YNC, USN.

• Thanks for sending along what appears to be one good approach to the problem of identifying devices for Navy Recruiters.

We had our say on the subject earlier, and won't express any opinion for or against your idea. We'd like to hear comments from others, however, and/or any new ideas or solutions.—Ed.

...how to send ALL HANDS to the folks at home

Superintendent of Documents
Government Printing Office
Washington 25, D.C.

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SERVICESCOPE

Brief news items about other branches of the armed services.

THE ARMY ORDNANCE CORPS is studying an idea which may take the guesswork out of diagnosing engine and electrical troubles in motor vehicles.

The new method of troubleshooting involves the use of electronic equipment to pinpoint sources of actual or potential breakdowns in engines and electrical systems.

As it is now, mechanics must rely on manufacturers' manuals, Ordnance Corps guides and directives, various testing gear and their own experience to diagnose vehicle troubles. An incorrect diagnosis can be costly in time, labor and money. The automatic checkout system now being studied at Frankford Arsenal, Philadelphia, Pa., could change all this.

Through an electronic inspection, all parts of a vehicle—including ignition system, engine, drive and other components—might be quickly and accurately analyzed. Automatic checkouts could also do away with certain maintenance jobs which now have to be done regularly regardless of whether or not a vehicle actually needs servicing.

The system under study calls for the use of a digital computer to receive information from transducers—perhaps small microphones or stethoscopes—attached to various mechanical or electrical components. Information received would be matched against predetermined standards and tolerances to provide an accurate basis for judging the condition of a vehicle.

★ ★ ★

THE ARMY OFFICER OF THE FUTURE will have more and different skills from those he had in the past. The Military Academy at West Point is making changes to its curriculum aimed at providing him with the necessary knowledge.

Primary changes will be increased instruction in the sciences, with emphasis on nuclear physics and astronautics. Also involved will be broadened coverage of the social sciences and humanities, including communication skills.

Academy officials recommended the curriculum changes after an intensive two-and-a-half-year study of what the Academy is providing now, and what will be needed in the foreseeable future.

AIR FORCE TSgt Jimmy B. Graves has spent three days at sea inside a tiny capsule which may some day replace the ejection seat as a means for getting out of fast moving aircraft.

In the Air Research and Development Command's first open-sea test of the new device, Sergeant Graves subsisted on capsule-contained survival rations for 72 hours. At the end of that time the capsule, with the sergeant still inside, was lifted from Atlantic and taken to land by a Navy helicopter.

The capsule is designed for ejection from an aircraft in much the same manner as the ejection seat is released. It would descend to a safe landing under parachutes. Its use would eliminate the dangers of wind blast and shock at supersonic speed, and would keep survival equipment from being lost—an ever present possibility with the ejection seat.

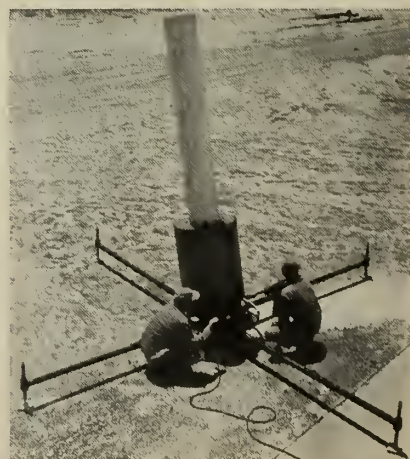
Under normal flight conditions, the capsule would not restrict pilot visibility or access to aircraft controls. However, in an emergency, the airman would automatically be enclosed in the rigid, sealed and pressurized structure, which is about two feet wide, 40 inches from front to back and 46 inches high. A rocket would be fired to get the capsule clear of the aircraft. For stability, in case the capsule goes down in water, the structure is equipped with inflatable bladders on the ends of booms. Emergency rations stored in the unit would help the downed airman to survive until he is rescued.

During the three-day survival test, elaborate safety precautions were taken by the Air Force and the Navy. Constant radio communications with Graves were maintained. Safety monitors and frogmen on a Navy LCU and on two LCPRs stood by to go to Graves' assistance in case of emergency.

The capsule was opened half the 72 hours and "buttoned up" the rest of the time. And, half of the test period was spent with the capsule tethered to the LCU.

While the capsule was tethered, the sergeant's respiration readings were taken on an oscilloscope, his galvanic skin responses were checked and electro-cardiogram readings were made.

Every hour Graves reported on the temperature and humidity within the capsule and reported his oral tem-



ROUND ROBIN—USAF prepares for Robin weather rocket balloon test designed for operational info from 250,000 ft.



HANGAR TAKE OFF—Air Force F-100 Super Sabre jet shoots up out of shelter made to withstand atomic blast.

perature, respiration and perspiration rate. He also kept a comfort index for various parts of his body, with reactions ranging from "very comfortable" to "extreme discomfort."

★ ★ ★

A LIGHTWEIGHT radar navigation and flight instrument system, developed for the Army, permits all-weather operation of aircraft and helicopters without assistance from ground-based radar and other present navigational guides.

The complete radar and flight instrument package weighs only 120 pounds—just half that of conventional systems—and is far more accurate. It features a nine-inch-square map display which shows a pilot a visual picture of his aircraft's position and progress. Exact location of the plane and its direction of flight are indicated by a moving pointer against air or grid maps.

The system also includes an extremely accurate "free gyro" which provides accurate navigation when magnetic references become unreliable, as at the North and South Poles, and at extremely high altitudes. Other features include movable tape which tells a pilot his speed and rate of climb, and an auto-navigator which "remembers" flight information.

★ ★ ★

THE STRATEGIC ARMY CORPS (STRAC) operated for the first time as an integrated force during a recent field exercise.

The combined command post and field maneuvers—designated Exercise Dragon Head—took place in the tri-state area of North and South Carolina and Virginia. More than 11,000 troops from 16 states took part in the two-week exercise.

Dragon Head was designed to train the 18th Airborne Corps (reinforced) in a simulated limited war involving the use of nuclear weapons. Situations were typical of STRAC missions with units deployed over a widely dispersed nuclear combat area.

The exercise emphasized problems involving divisional control of nuclear weapons and featured the simulated play of nuclear weapons delivered by Army and Air Force units.

STRAC and subordinate unit headquarters were sufficiently staffed during the operation to provide realistic

training for the troops and their leaders. Participating troops included elements of the 82nd and 101st Airborne Divisions, the 4th Infantry Division, the 3rd Armored Cavalry Regiment, and about 100 other supporting units.

Dragon Head was the first of several exercises planned by the Continental Army Command to insure the combat readiness of various Army elements.

★ ★ ★

THE FIRST SUCCESSFUL West Coast launching of the Air Force's *Atlas* intercontinental ballistic missile represents a step toward operational status for the 6000-mile plus ICBM.

The 250,000-pound, 82-foot *Atlas* was launched at 1049, 11 Sep 1959 after a normal count-down by an Air Force crew from the 576th Strategic Missile Squadron at SAC's Vandenberg Air Force Base.

When launched, the warbird struck a westward course and according to reports, made a direct hit on its designated target in the vicinity of Wake Island.

Atlas has a thrust of 360,000 pounds at sea level and attains a speed of 17,250 statute miles per hour. It is powered by a cluster of three rocket engines—two boosters and one sustainer.

The first ICBM to be launched by the U. S. was an *Atlas*. It was fired from Cape Canaveral on 11 Jun 1957. Although that missile was destroyed, a subsequent *Atlas* made a successful flight in 1957.

In November 1958, an *Atlas* flew the full intercontinental range—6300 miles from its launch point—to prove the missile's ultimate capabilities.

★ ★ ★

THE ARMY HAS DEVELOPED a universal flight control system based upon a new principle involving electronic "building blocks." It can be installed in various combinations to make possible any desired degree of automation in flight.

Old flight control systems made it necessary to custom-engineer an individual system for each type of aircraft, or at least to modify it extensively to fit individual requirements.

The new system, developed jointly by the Army Signal Corps and civilian industry, is expected to eliminate millions of dollars of such tailoring expense.



LATEST IN TANKS—Army's new main battle tank, M-60, is designed to replace both Patton Tank and the M-103.

THE BULLETIN BOARD

If You're on Your Way to Subic Bay, Here Is What to Expect

THERE'S LITTLE DOUBT that Subic Bay is good duty. To make you feel at home when you arrive, the wives of Navy and civilian personnel stationed there have pooled their talents to produce a living conditions pamphlet which reflects on every page their pride and affection for their home away from home. The Photo Lab turned to and produced buckets of pictures. As a result of this cooperation, the pamphlet itself is one of the most informative and attractive such publications it has been our pleasure to read for some time. Here's what the wives have to say:

The Station: Halfway around the world from you (if you are in the U. S.), lie more than seven thousand islands that comprise the Philippines.

On Luzon, 80 miles north of Manila, is Subic Bay, one of the finest natural harbors in the world. Today Subic Bay is growing into the largest complex of naval activities in the Far East.

The Bay, surrounded by rugged mountains which form a natural protection against the typhoons which annually rip through Luzon, is large enough and deep enough to accommodate almost any number of ships.

The base itself is large and still growing. What began as a small U. S. Naval Station in 1904 has become a huge sprawling activity with over 2400 military personnel now on duty. Together the military and the civilians have approximately 2400 dependents here.

If you know the tropics, you know what to expect of Subic Bay. If you don't, then look forward to a pleasant tour.

Housing: The facilities and living conditions are comparable to those you would find in any small town in the United States.

Quarters for enlisted families are in Binictican. These are two-story duplex houses, accommodating two families in one building. At the ground-level there is a car-port, screened porch, storage room, and a laundry room equipped with an

automatic washing machine shared by both families. A shower and tub in the laundry room make it adaptable for maids' quarters. You walk from the porch through an enclosed stairway to the quarters on the upper deck. Here, you will find a large living-dining room, kitchen, and two or three bedrooms. The kitchen is equipped with an electric stove, refrigerator and deep freeze — or second refrigerator.

Most officer quarters are located in West Kalayaan, but some are in East Kalayaan. Senior officers' houses are similar to the Binictican quarters. Junior officer quarters are concrete bungalow types without car-ports. They are one- and two-story duplexes with living-dining rooms, kitchens and large screen porches. The bedrooms and bath are on the second floor of the two-storied versions. The kitchen is equipped with electric stove and refrigerator and there is a freezer on the porch. Each duplex shares an automatic washer.

Public quarters may not be available immediately. The wait may be brief or several months.

When you receive your orders, forward a copy to the Housing Officer here, stating the size of your family and when you expect to arrive at Subic Bay.

All quarters are furnished with rattan furniture. There is a double bed in the master bedroom, and the other bedrooms have twin beds. You may want to supplement the furniture supplied to make the house feel

more homey. You will need lamps for the bedrooms, as there are no overhead fixtures and bedroom lamps are not provided. The color schemes vary from light green to deep cream. Closet space is adequate, and heating elements in each closet keep clothes from mildewing during the rainy season. China, kitchenware, silverware or linens, are not provided. However, Special Services can furnish an emergency household kit at nominal rental for your house until your household effects arrive.

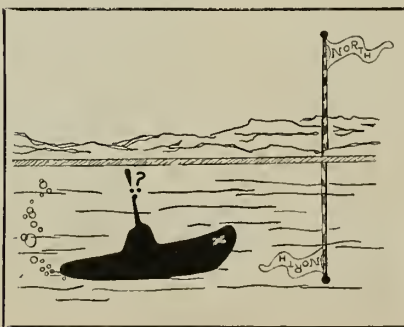
You may want to bring a dryer for use during the rainy season, although it is possible to dry your clothes in the laundry or the porch area.

Navy Exchange: The Navy Exchange store is comparable to a large general store, and carries a wide variety of items. It doesn't, however, have everything when you want it. Although every effort is made to keep the supply up to every foreseeable demand, shipping difficulties cause temporary shortages. Don't worry about it—wait until you get here.

Let's see what it does have. One section carries a wide variety of glassware, china, silverware, kitchen utensils, linens, electrical appliances, and general household odds and ends. There is a well-stocked toilet goods department which carries standard brands of cosmetics and a few medical items. If you absolutely have to have special cosmetics and creams, bring them with you, but remember that those with vegetable oil bases go rancid in a hurry in the tropics.

Other departments of the Exchange carry men's wear, ladies' wear, infant and children's wear, notions and sundries, sewing aids, cameras and photographic equipment, luggage, cigarettes and tobacco, toys, bicycles and sporting goods. There is usually a large variety of Oriental and local Philippine gift items. The Navy Exchange will order special items for you, usually at reductions from regular prices.

All Navy Cartoon Contest
Jean E. Cornish, AT3, USN



The Commissary section of the Navy Exchange is well-stocked. Fresh vegetables come in at least once a month and sometimes more often. The vegetables received, however, are limited because they cannot be stored very long. A good supply of frozen vegetables, fruits, meats, rye bread and rolls is stocked. Fresh frozen whole milk is a standard item; fresh reconstituted milk, comparable to stateside milk in taste, is available.

There is always a large supply of canned goods, coffee, shortening, seasoning, and the essential items you would find in your supermarket at home. Some brands may be new to you, but you will find them just as nourishing as the ones you remember. The Commissary gives special attention to food for infants and children.

It is possible to obtain some locally grown fresh vegetables at the market in Olongapo.

Fish can be obtained locally, but if you want to be sure it is fresh, you'd better catch your own—or make friends with a fisherman.

Soft drinks, beer and other bottled beverages are readily available.

The Navy Exchange maintains a tailor and dressmaking shop where uniforms, suits, dresses, shirts, blouses, skirts and slacks, curtains and drapes can be made at reasonable prices. There are also barber shops and a beauty parlor and a cobbler shop.

The Exchange runs a laundry and dry-cleaning facility. And across the street from the Main Exchange there is a Maintenance and Repair Shop for radios, phonographs and large and small electrical appliances.

Near the Exchange is a soda fountain and snack bar. There is also a station restaurant which is not part of the Navy Exchange.

The Navy Exchange is proud of its new and modern service station. Although the Navy Exchange service station is unable to offer the full line of services as in the States, those offered will keep one's automobile in proper running condition. High octane gasoline (92.5 octane) is available. The price is very reasonable. Services include oil changes, chassis lubrication, wheel pack, wheel balancing, battery charge, light motor tune up, tire repair and others. A retail store located at the Station

stocks accessories such as tires, batteries, oil filters, spark plugs, polishes, etc. Your car should be in good condition before you bring it overseas, however.

Station Hospital: The new 60-bed Station Hospital, located approximately eight miles from the Station, provides modern medical care.

The hospital is adequately staffed and equipped to provide all the expected services of a facility of its size including obstetrical and pediatric care.

Dependent medical care is available at the Station Hospital for all commands in the Subic Bay area.

Routine sick call is available at the Naval Dispensary on the Station for all military personnel.

Every effort is being made to provide dental service for dependents.

Schools: The elementary, junior and high schools of the Navy at Subic Bay are operated by the Commanding Officer, Naval Station, to provide schooling for dependents of military and U. S. civilian personnel attached to the various commands of the naval base.

The school year begins in September and closes in June, just as in the States, but because of the weather, class sessions start and dis-

HOW DID IT START

Propellers

Propellers have pushed U.S. Navy ships since 1843—long before any of us had shipped over. Today they are still used on both Navy ships and airplanes, in spite of the increasing popularity of jet propulsion.

One of the first men on record to conceive the idea of a propeller was—of course—Leonardo da Vinci in 1490. He built a model helicopter which actually flew. Unlike today's whirlybirds, however, the rotor on his helicopter was made from feathers.

Over 300 years later, Francis P. Smith, an Englishman, and Captain John Ericsson, a Swedish engineer, both patented a practical screw-type propeller for a ship. In 1839 ships were built which used a propeller designed by each of these men.

In 1842, eight years after these ship propellers were patented, another Englishman, Samuel Henson, patented the design for a 150-foot wingspan airplane. It was to use 20-foot-long propellers. The plane never left the ground.

The U.S. Navy first tried propellers on a ship in 1843. According to the Naval History section of CNO, the first U.S. Navy ship to use a propeller was USS *Princeton*, launched in Philadelphia, Pa., in that year. This iron-hulled ship was designed by John Ericsson.

By 1860, England had ships operating on the Thames River with twin screws. As the power of ships increased, triple and quadruple screw ships were developed. The three and four propellers, however, proved at that time to have several disadvantages and were soon abandoned.

A controllable pitch propeller, or a prop whose amount of twist can be altered, was later successfully used by the British. Although airplanes have been using controllable pitch props for many years, only

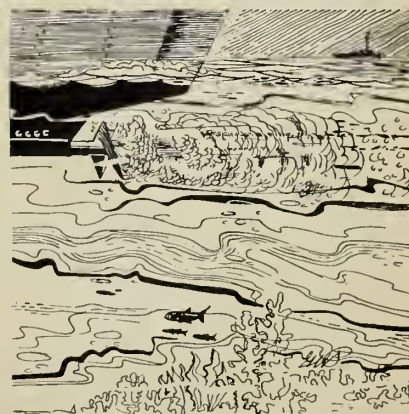
recently has this type propeller been used very extensively on U.S. Navy ships.

One of the latest attempts to improve a ship propeller's efficiency was announced by the U.S. Navy in 1959. It was the "super cavitating propeller."

Up until this time, attempts to increase the speed of ships had been hampered by cavitation (a partial vacuum in the water around a rapidly revolving propeller).

The new propeller, however, designed with two flanges with square ends instead of the conventional blades with tapered ends, takes advantage of this cavitation to provide increased thrust and decreased frictional drag on the blades. This propeller operates satisfactorily on high speed ships.

In spite of the latest advances in power plants, propellers are still used on Navy ships and many airplanes. Recently a jet propulsion system was installed on USS *Witek* (DD 848). The propulsion system consists of two axial flow pump-jets which replace the conventional screws. The water, discharged aft in a jet, propels the ship.



miss at earlier hours in the day.

Except in an emergency, only teachers fully qualified to meet U. S. Civil Service standards are employed.

To enter first grade, a child must be at least six years of age by 31 December of the current year.

Recreation: To keep happy you must have something to do, and Subic is a wonderful place to pursue your favorite hobby or start the one you have always wanted to try. The Hobby Shop has all the equipment necessary for leather work, model making, wood working, and stock components for building your own hi-fi sets. You'll also want to make use of the photo lab.

The Enlisted Men's Club, Chiefs' and Officers' Clubs are considered adequate. New clubs are under construction.

All the clubs have cocktail lounges and full-course meals are served. Movies are shown at the Chiefs' and Officers' Clubs when other entertainment is not scheduled. During the rainy season of the year, movies are also shown daily in the Enlisted Men's Club. All movies shown at the clubs and the base open-air theatre are free.

Several softball diamonds are available, one of which can be lighted for night games. There is also a regulation baseball field.

A Little League for boys eight to 12 years of age has been organized.

For those who like picnics and swimming in salt water, Manga Beach, a palm-shaded private area located four miles from the Base, has been established complete with bathhouse, picnic tables, lifeguards, and a concession stand. The water and beach area are regularly inspected for cleanliness, and regular transportation is provided.

The gymnasium has an indoor basketball court. However, there is no gymnastic equipment available for general use except through a privately operated concession which charges a monthly membership fee.

There are several excellent tennis courts located on the Base. An open-air skating rink is open daily.

Subic Bay, incidentally, is an excellent harbor for boating—both motor and sail—and fishing.

There are two modern swimming pools, with lifeguard service and wading pools for the small fry. Red

David J. Majchrzak, DN, USN



"I'm not picking on you, but you don't boil hamburgers!"

Cross volunteer workers conduct regular swimming classes for both children and adults at the two pools.

Bowling is very popular with dependents, and there are 12 alleys, all in fine condition. A new bowling alley is under construction.

The Housewives' Bowling League is a member of the Women's International Bowling Congress—the first in the Philippines.

A new 18-hole, 71-par golf course—Binictican Valley Golf Course—was opened at Subic in December 1957. The course is equipped with club house, club rentals and caddies. Professional instruction is available for a reasonable fee.

For those who prefer the less strenuous life there is a well stocked library, with several thousand volumes of fiction, nonfiction and technical books. New books are added regularly.

Communications: The Naval Station Post Office provides all the serv-

David J. Majchrzak, DN, USN



ices of a stateside post office. Air mail time to the U. S. averages six days, except during the Christmas rush. Packages take quite a lot longer.

Overseas telephone communication is possible, but at times poor. Telegraphic communication is available. The Navy, of course, operates an emergency telegraphic service known as the "Class E" message.

The Armed Forces Radio and Television Service's station at Subic Bay, KCMB, operates 20 hours daily.

In addition to the usual disc-jockey type programs and soap operas, minus the commercials, KCMB presents a complete newscast 10 times daily.

Religious Services: There are two chaplains on duty here—one Catholic and one Protestant. Regular church services are conducted and special services are held at Christmas, Easter, Memorial Day and Thanksgiving. The church choirs always need members. Children are encouraged to attend Sunday School.

Weather: There are three seasons: hot, rainy and cool.

The hot season begins in April and lasts until July. Then the rains come, sometimes as much as 10 or 12 inches a day. The rainy season ends the first part of November, and then a pleasant stretch of weather known as the "cool" season begins.

Most people who have never been in the tropics before are happily surprised to find that during the hot season the nights are cool. During the rainy weather, boots, raincoats, umbrellas and all sorts of foul-weather gear are necessary. The cool season is comparable to late spring back home, and the nights are generally cool enough for light blankets.

Travel: From time to time, you will probably take leave and make recreation trips, off the Base. In the Philippines, there are at least two places you will want to visit. One is Manila, the capital city and one of the largest and most modern cities in the Far East. It is accessible from Subic Bay by auto over rough roads. Driving time is about two and a half to three hours. Sometimes a boat run is made by the Navy for military personnel and dependents. The water route takes five or six hours. A round trip by commercial

air costs less than \$10 and takes just 30 minutes one way.

The other much-visited point of interest is Baguio, summer capital of the Philippines.

Baguio is located in the mountains of northern Luzon and is a truly beautiful place. It is considerably cooler in all seasons than the area about Subic Bay. Baguio can be reached by plane and by auto.

Limited opportunities are offered to servicemen and their families to visit other countries via government transportation. During your tour of duty here, you may be able to visit Hong Kong, Bangkok, or Saigon. Hong Kong is readily available on a commercial airplane or ship. Periodically, a designated Navy transport ship takes military personnel and dependents to Hong Kong free of charge.

The climate of Hong Kong and Baguio is comparable to that of San Diego, Calif.

What You'll Wear: Life in a land of perpetual summer naturally calls for cool, comfortable clothing with a minimum of care involved. Cotton is the answer, especially for women's and children's wardrobes. It is worn the year around, so bring a plentiful supply.

For casual wear, skirts and blouses or softly tailored dresses will serve your wife nicely. Shorts are most popular with those who go in for sport clothes. Bermuda shorts are considered proper attire on the Naval Station and in Base facilities. Barefoot sandals are a must, so bring several pairs. Be sure to bring enough swimming togs. Even if you aren't a swimmer, you may be one when you leave Subic Bay.

You will need to bring some warm clothing for vacations to Baguio or Hong Kong. A few light sweaters and woolen skirts, a suit and a coat should be enough.

Children lead a carefree existence at Subic, so clothing for them is not much of a problem. For school wear, dresses for the girls, and, as usual, jeans for the boys. Bring a few outfits for dress-up occasions, too.

The Filipino formal wear, the *barong tagalog*, for the men, has become popular with Americans here. This open-collar shirt takes the place of a suit coat and tie at any formal occasion. It is the most popular type of evening wear and while

normally made from fibers, such as pineapple and banana plants, it is also seen in cottons and silks. It is correct evening wear anywhere.

It is recommended that you bring a summer-weight suit for vacation and for those occasions you attend before you get a *barong*.

Washable cotton trousers and shorts with short-sleeved sport shirts are the mode for all informal wear.

Uniforms: Basically, for officers and CPOs, the uniform will be either tropical white long (or short) or tropical khaki long (or short) and for enlisted, other than CPO, tropical white or khaki, undress white "A" or "B" or dungarees when appropriate.

After 1800 daily and on Sundays

NOW HERE'S THIS

Southernmost College

Peterson University may not be able to match some other schools when it comes to antiquity, football, pretty coeds or enrollment, but it does stand out in at least one respect. Located aboard USS Peterson (DE 152), which is engaged in Operation Deep Freeze, it claims to be "the southernmost college in the world."

Almost the entire crew of Peterson is working for high school or college credits through the U. S. Armed Forces Institute. Six of the destroyer's officers serve as instructors at the unique college afloat.

Classes meet every afternoon. The courses offered include English, Algebra, Basic Mathematics, Physics, American History, Business Law, Spanish, Elementary Psychology, Guided Missiles, Family and Marriage, plus selected topics in religion.

The campus of "Old P U" is not exactly ivy covered. Its main—and only—features are gray seas and floating icebergs.



and holidays after 1100, tropical white long or service dress khaki without coat is prescribed for officers and CPOs.

The enlisted tropical white uniform includes regulation shorts and white T-shirt. The tropical khaki simply substitutes khaki shorts for white. Only undress white "A" or "B" is authorized after 1800 daily and on Sundays and holidays after 1100.

What to bring: It is easier to say what not to bring. In that category would fall all heavy coats and suits, heavy blankets, and probably large over-stuffed pieces of furniture. These items will just fill up your closets if you bring them.

Do bring all your kitchen appliances. And bring an air conditioner if you like air conditioning. (It is not absolutely necessary, but many prefer them.) Bring your dryer, if you have one.

Don't bring expensive, heavy drapes because the humidity is hard on them and they probably won't fit the many-louvered windows you will find in your quarters.

Bring coat hangers. There never seem to be enough of them and you use a lot with a wardrobe of light cotton clothes and uniforms.

Bring mail order catalogs, summer or spring editions preferably.

Bring your linens and bedspreads, summer shoes (both men and women), silver, garden tools and hose (plus nozzles, sprinklers, etc.), toys, party decorations, all your lamps and pictures and pattern books. Bring your household tools like pliers and screw drivers and hammer.

Bring your books. Your neighbors will appreciate a chance at some fresh reading material.

As soon as you know that you are coming to Subic Bay, start checking off the things you have to do.

Inoculations: Check with the Medical Department for the inoculations you and your dependents must have for travel to the Philippines and get them started. Be sure to obtain and keep an authenticated record of the inoculations. You will need it on your trip.

Household Effects: The Supply Department at your present duty station can tell you how to go about shipping your household effects and your auto.

Entry Permission: If you are bring-

ing dependents, you must have entry permission for them from Commander Naval Forces, Philippines. Request this by message when you receive your orders.

Passports: While the military member of the family does not need a passport—your orders suffice—you will need one for some R & R trips. Get one if you can and save time later. Your wife and other dependents must have passports to enter the Philippines. Apply for passports through the local office of the State Department where available. The local county courthouse should also have the necessary forms. Ask that your passports be forwarded to the District Passenger Transportation Office, Com 12, San Francisco. Pick them up there when you check in for your overseas transportation. You will need photos—2¼ by 2¼—for your passport application and your visas. Order at least six prints.

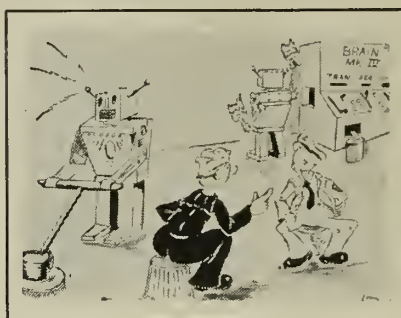
Visa: Your passport must have a Philippine visa. This can be obtained from the Philippine consulate in San Francisco when you arrive there. However, it can also be obtained by mail and the Com 12 necessary forms. (You, the military member, do not require a visa.)

Transportation: Your personnel office will provide you with the necessary forms for requesting transportation from your port of embarkation to Subic Bay. Otherwise, Com 12 will provide the forms upon request. How you get to the port of embarkation is your choice.

Overseas transportation is normally by MSTs from San Francisco. All you have to do is complete the necessary forms and forward to DPTO, Com 12. They will come back offering your dependents transportation on a certain date and ship. This offer must be accepted or rejected by wire immediately. If you have authority to travel concurrently tell Com 12 and you will probably all go on the same ship or plane. If you are not traveling concurrently, make sure your wife (or other dependent) keeps copies of all official papers, orders and transportation orders and has them when she checks in at Com 12 for transportation. (She needs her inoculation record there, too.)

Domestic Help: Housemaids, laundresses, cooks, nursemaids and house boys can be hired reasonably.

All-Navy Cartoon Contest
L. "F." Mahle, AD1, USN



"Let's face it chief . . . It's a changing Navy."

Currency: Two kinds of money are used at this Base. The first is Military Payment Certificates (MPCs—paper money issued in dollar and cent denominations); the second is Philippine pesos.

Military Payment Certificates are the only official medium of exchange in all U. S. military installations in the Philippines: MPCs cannot be used outside. In other words, when you are *INSIDE* the military fence, you pay for everything you buy (with a few exceptions which are listed below) with Military Payment Certificates. When you are outside the military fence, you can't buy anything from anybody with MPCs; instead, you use the second kind of money—Philippine pesos.

The exceptions are as follows: Pay domestics inside-the-fence in pesos, as they are not allowed to possess MPCs. If you have people coming on the Base to perform services or make deliveries, pay them in pesos only.

So far as you are concerned, the only people authorized to hold MPCs are U. S. military personnel, U. S. civilians employed by the U. S. government, and their dependents. Certain Filipinos are authorized to hold MPCs, but the amounts they can have are limited, and you are not allowed to add to their holdings.

You are authorized to change MPCs at the Disbursing Office and the Cashier's Booth near the Navy Exchange, during working hours.

After hours, you may exchange MPCs for pesos at the Money Exchange near Gate 2, at the EM Club, CPO Club and Officers' Club. You may also exchange MPCs for pesos, or pesos for MPCs, with any person

authorized to hold both types of money.

MPCs cannot be carried or transferred to any country or area where MPCs are not authorized for use. If you are planning a trip out of the Philippines the Disbursing Office will exchange your money into a suitable currency.

You are not allowed to have U. S. currency in your possession. Any that you have must be turned into the Disbursing Office for conversion to MPCs or pesos within 48 hours after your arrival in the Philippines.

Certain Rating Eligible To Change To PT Without Exams

Certain qualified enlisted men may change their rate to Photographic Intelligenceman (PT) without taking a change of rating examination.

To be eligible under this program, E-6 and E-7 personnel must be graduates of the Photographic Interpretation and Radar Target Analysis course at the Naval Intelligence School, Washington, D.C., and hold a current Navy Enlisted Classification Code (NEC) of 9961, 9962 or 9963.

E-4 and E-5 personnel must have graduated from the same school or from a Fleet Intelligence Training Center Course and hold a current NEC code of 9960, 9961, 9962 or 9963.

If you have already applied for a change of rating examination, you can still apply under this direct conversion program. You are advised, however, to take the examination on the scheduled date regardless.

Applications should be submitted on a NavPers Form 1339 (Enlisted Evaluation Report) via your commanding officer so it reaches the Bureau of Naval Personnel by 1 Mar 1960.

A selection board will meet in the Bureau during March 1960 to select a sufficient number of qualified volunteers to build the PT rating to a level where it will be sustained in the future by normal rating input. Selection of these men for direct conversion to the PT rating will be completed by 1 Apr 1960, and successful applicants will be notified by individual letter. Unsuccessful applicants will not be notified.

See BuPers Notice 1440 of 17 Dec 1959 for further information.

AL Will Go, Men in Rating Will Be Trained as Radiomen Except Naval Aviation Pilots

With a few exceptions, the majority of aviation electronicsmen (AL) who have not changed their rating up to this time will be placed in "in-service" training for the radioman (RM) rating.

The disestablishment of the AL rating was first announced by the Chief of Naval Personnel in 1953. Since then, a program has been in effect to phase men out of the AL rating. There still remain, however, a number who have been unable or unwilling to qualify for conversion. Since the Navy has an urgent need for men with communications experience, the remaining AL personnel will be employed in this area.

Detailed instructions for the final disestablishment of the AL rating for all personnel on active duty, including TARS, are spelled out in BuPers Inst. 1440.10B.

According to this instruction, those in the AL rating who have requested transfer to the Fleet Reserve will remain at their present duty stations until date of transfer for processing.

All remaining ALs will be placed in "in service" training for radioman. They will be utilized in radioman billets wherever possible and, upon transfer, will be ordered to radioman billets.

Being assigned "in-service" training does not change your rating in any way. It merely identifies you as a radioman trainee.

After you have fulfilled the eligibility requirements for change to the RM rating, your commanding officer is authorized to order service-wide examinations for change in equal pay grade to the RM rating.

COs may also order examinations for concurrent change and advancement to the RM rating if you are qualified. The examinations will be administered on the same day and in the same manner as the regular service-wide examinations.

If you pass the examination, your change of rating or advancement and change of rating will be authorized by the CO, U. S. Naval Examining Center, in the letter promulgating results of the service-wide examinations.

Hereafter, no AL personnel will be permitted to enlist, reenlist, ex-

tend enlistments, or execute an active duty agreement except upon approval of the Chief of Naval Personnel.

Aviation electronicsmen who are designated naval aviation pilots will remain in the AL rating and will continue to be assigned to aviation pilot duties. They may request authority for reenlistment or extension of enlistment as outlined above for other ALs in order to become eligible for transfer to the Fleet Reserve or retirement. ALs who are qualified pilots will not be assigned the "in-service" training for radiomen.

ALs desiring to change to a rating other than RM must submit a request to the Chief of Naval Personnel in accordance with BuPers Inst. 1440.5C.

All requests from Air Reserve TARs shall be submitted to the Chief of Naval Air Reserve Training instead of the Chief of Naval Personnel.

Fitness Report Procedures Revised to Cut Paperwork

Fitness report procedures have been revised to do away with meaningless paperwork in cases where the reporting senior is temporarily filling a billet for a period of 30 days or less until a regular relief arrives.

Under Navy Regs the combined fitness reports of an officer are required to cover all his service in a duty status. However, a study of the fitness reports submitted to the Chief of Naval Personnel indicates that meeting this requirement often makes it necessary to cover short periods with reports containing such markings as "not observed" or "for continuity purposes only." Most of these cases arise when a reporting

senior is detached without a contact relief, and his office is assumed by a temporary incumbent until the relief arrives. The temporary incumbent thus becomes the reporting senior for the short period between permanent incumbents.

To reduce workloads and cut down on the submission of such reports, this practice has been modified. From now on, under BuPers Notice 1611 of 20 Nov 1959, an officer temporarily filling a billet as reporting senior may arrange with the regular relief for that billet to cover a period of 30 days or less in the next report of fitness. Under such circumstances the temporary period will be covered in Sections 10 and 11 of the next fitness report. A typical entry under Section 11 would read:

"No report 9-15-59 to 10-12-59 (served under interim CO)."

This authority is permissive in nature. It is not intended to preclude the submission of a meaningful report, or to preclude the submission of a report if the officer reported on is detached during the temporary incumbent's tenure.

The notice covering the revised procedure will be cancelled when its provisions have been incorporated into the *BuPers Manual*.

Openings for Enginemen Seeking Submarine Duty

If you're an engineman E-4 though E-7 or a designated EN striker interested in submarine duty, and you'd like to get aboard one in a hurry, get your application started through the chain of command right now.

Shortages in the engineman rating are preventing the submarine forces from fully supporting submarine new construction and nuclear-power programs. The underwater Navy needs more ENs fast—and it's taking radical steps to get them. A certain number of EN volunteers each month are now being assigned directly to submarines via intra-Fleet transfer, without first attending basic submarine school.

Requests should be made on NavPers Form 1339 via your CO to the cognizant Enlisted Personnel Distribution Office (EPDOPAC or EPDOLANT) for "submarine duty via intra-Fleet transfer."

David J. Majchrzak, DN, USNR



Report on Standard Uniform Tours at Overseas Duty Stations

STANDARD UNIFORM TOURS have now been established for 126 overseas shore duty stations, including 15 newly established ones.

In favorable areas the standard pattern generally calls for 36-month tours for personnel accompanied by their dependents and 24-month hitches for those without their families. In locations where living conditions are less favorable, owing to climate, isolation or other factors, shorter tours have been established.

Among the new duty for which uniform tours have been established since ALL HANDS last published such a roundup of overseas shore duty tours (Sep 1959) are Corsica, Cyprus and Sicily in Europe; Burma, Hong

Kong and New Zealand in the Pacific and Far East; and Costa Rica and San Salvador Island in the South American and Caribbean areas.

Pamphlets on living conditions at some of these locations are available. They may be obtained by writing to the Chief of Naval Personnel (Pers G221) Navy Department, Washington 25, D. C. The latest on Shore/Seavey rotation is published in the *Enlisted Transfer Manual* (NavPers 15909) and reported periodically in ALL HANDS. Check with your personnel office.

Locations indicated by asterisks are areas where dependents are NOT permitted.

Country or Area	Tour with dependents (In months)	Tour without dependents (In months)	Country or Area	Tour with dependents (In months)	Tour without dependents (In months)
AFRICA AND MIDDLE EAST AREA			FAR EAST AND PACIFIC AREA		
Bahrein Island	15	12	Australia (except Alice Springs)	36	24
Egypt	36	24	Alice Springs	24	18
Ethiopia (except Eritrea)	24	18	Burma (except Rangoon)	24	12
Eritrea (Asmara)	30	18	Rangoon	24	14
Iran (except Teheran)	24	12	Cambodia	24	12
Teheran	24	18	Eniwetok	*	12
Iraq	24	18	Guam	24	18
Liberia	36	24	Hawaiian Islands	36	24
Libya (except Tripoli)	30	18	Hong Kong	36	24
Tripoli	36	24	Indonesia (except Djakarta)	24	12
Morocco			Djakarta	24	14
Ben Guerir area	24	12	Iwo Jima	*	12
Casablanca area including Nouasseur	36	24	Johnston Island	*	12
Marrakech area	30	18	Japan (except Wakkani)	36	24
Port Lyautey area including Boul			Wakkani	*	12
Haut, Rabat and Rabat Sale	30	18	Korea	24	13
Sidi Slimane	24	12	Kwajalein	18	12
Pakistan (except Peshawar)	24	18	Laos	24	12
Peshawar	*	12	Midway Islands	18	12
Saudi Arabia (except Dhahran)	18	12	New Zealand	36	24
Dhahran	24	13	Philippine Islands (except Mindanao)	24	18
Turkey			Mindanao	*	12
Ankara, Istanbul and Izmir	30	18	Ryukyu Islands	30	18
Adana, Sile, Golcuk and Karamousal	24	18	Saipan	24	18
Derenca, Iskenderun	*	18	San Nicolas Island	*	12
Other areas	*	12	Taiwan	24	15
Palestine, UN Truce Supervisory Organization	24	18	Thailand (except Bangkok)	*	12
			Bangkok	24	18
			Viet-Nam (except Saigon)	24	12
			Saigon	24	14
			Wake Island	18	12
EUROPE			NORTH AMERICA AND NORTH ATLANTIC AREA		
Austria	36	24	Alaska		
Belgium	36	24	Aleutian Peninsula and Islands west of 162d Meridian including Adak, Attu and Dutch Harbor	18	12
Crete	24	18	Anchorage area including Elmendorf AFB and Fort Richardson	36	24
Corsica	*	18	Big Delta area including Fort Greely	24	18
Cyprus	24	18	Fairbanks area including Eielson AFB and Ladd AFB	30	18
Denmark	36	24	Juneau area	24	18
France	36	24	Kenai-Whittier area including Wildwood Station	24	18
Germany	36	24	Fire Island	*	12
Greece	30	18	Kodiak Island	24	12
Italy	36	24	Murphy Dome	*	12
Malta	24	12	Nome area	24	12
Netherlands	36	24			
Norway	36	24			
Portugal	36	24			
Sicily, Sigonella	24	18			
Spain	36	24			
United Kingdom	36	24			
Yugoslavia	24	18			

Country or Area	Tour with dependents (In months)	Tour without dependents (In months)	Country or Area	Tour with dependents (In months)	Tour without dependents (In months)
Point Barrow area	18	12	Chile	36	24
Azores	24	18	Colombia	36	24
Canada			Costa Rica	36	24
Labrador (except Goose AFB)	24	12	Cuba		
Goose AFB	24	15	Guantanamo	24	18
Metropolitan areas	36	24	Havana	36	24
Newfoundland			Dominican Republic	36	24
Argentina	24	18	Ecuador	24	18
St. Johns	36	24	Eleuthera	24	18
Stephensville	30	18	El Salvador	36	24
Other areas	24	12	Guatemala	36	24
Greenland	24	12	Haiti	36	24
Iceland	24	12	Honduras	24	18
Mexico	36	24	Nicaragua	24	18
SOUTH AMERICA AND CARIBBEAN AREA			Panama including Canal Zone	36	24
Antigua	24	18	Paraguay	24	18
Anguilla	24	18	Peru	36	24
Argentina	36	24	Puerto Rico	36	24
Aruba	24	18	San Salvador Island	*	12
Barbados	24	18	St. Lucia	*	12
Bermuda	36	24	Trinidad	24	18
Bolivia	24	18	Turks Island	*	12
Brazil	36	24	Uruguay	36	24
			Venezuela	36	24

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in December.

Tempest (1419) (C) (WS); Drama; Sylvana Mangano, Van Heflin.

A Private's Affair (1420) (C) (WS): Comedy; Sal Mineo, Christine Carere.

Surrender Hell (1421): Melodrama; Keith Andes, Susan Cabot.

Have Rocket-Will Travel (1422): Comedy; Three Stooges, Jerome Cowan.

The Blue Angel (1423) (C) (WS): Drama; Curt Jurgens, May Britt.

It Started With a Kiss (1424) (C) (WS): Comedy; Glenn Ford, Debbie Reynolds.

The Hound of the Baskervilles (1425): Melodrama; Peter Cushing, Andre Morrell.

Darby O'Gill and The Little People (1426) (C): Drama; Albert Sharpe, Janet Munro.

The Man Who Understood Women (1427) (C) (WS): Comedy-Drama; Leslie Caron, Henry Fonda.

Yesterday's Enemy (1428) (WS): Drama; Stanley Baker, Guy Rolfe.

The Devil's Disciple (1429): Drama; Burt Lancaster, Kirk Douglas.

Yellowstone Kelly (1430) (C): Western; Clint Walker, Edward Byrnes.

The FBI Story (1431) (C): Drama; James Stewart, Vera Miles.

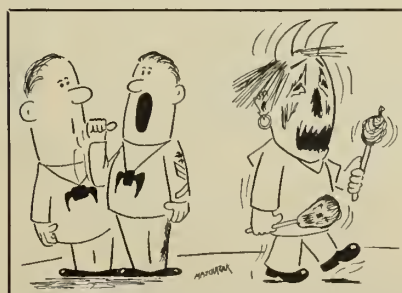
The Miracle of the Hills (1432) (WS): Drama; Rex Reason, Nan Leslie.

The Oregon Trail (1433) (C) (WS): Western; Fred MacMurray, William Bishop.

Web of Evidence (1434): Melodrama; Van Johnson, Vera Miles.

The Man Who Could Cheat Death (1435) (C): Melodrama; Anton Diffring, Hazel Court.

David J. Majchrzak, DN, USNR



"He has more power than APCs."

Pillow Talk (1436) (C) (WS): Comedy; Doris Day, Rock Hudson.

Libel (1437): Drama; Olivia DeHavilland, Dirk Bogarde.

Tarzan's Greatest Adventure (1438) (C): Melodrama; Gordon Scott, Anthony Quayle.

Six CPO Ratings Need OK To Reenlist After 20 Years

CPO's in only six of the rates must now request permission from the Chief of Naval Personnel to reenlist or extend their enlistment with 20 or more years' active service. These ratings are SHC, LIC, SFC, EOC, ABC, and SDC.

When BuPers Inst. 1133.12A was first published in November 1958, it carried a list of 42 CPO ratings which needed permission. The program was adopted to improve the promotion possibilities of top POIs who were unable to advance because of the over-complement of CPOs in certain rates. More ratings will be dropped later.

During the rest of this year, for example, some 10,000 chief petty officers will become eligible for transfer to the Fleet Reserve. Past experience indicates that at least 50 per cent of these men will transfer when they become eligible and an additional 40 per cent will transfer within the next two years.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 64—Discussed assignment to duty with Joint, Combined, Allied, and Office of Secretary of Defense Staffs as a requirement, with certain exceptions, for all officers selected for promotion to general and flag officer rank.

No. 65—Cited need for certain

personnel for wintering-over party and summer support operations for Deep Freeze 60.

No. 66—Offered season's greetings from the Secretary of the Navy.

No. 67—Stated that 23 December would be designated a day of fast and abstinence for Catholic personnel.

No. 68—Required that all ships and stations half-mast the national ensign out of respect for Walter Williams, the last Civil War veteran.

Instructions

No. 1120.12G—Announces Change No. 1 to this instruction, which is concerned with the Regular Navy Augmentation Program. The change establishes new eligibility dates of rank for officers desiring transfer to the Regular Navy.

No. 1130.4F—Change No. 3 brings up to date the list of open rates for purposes of enlistment in the Regular Navy or Naval Reserve by personnel serving on active duty.

No. 1300.26A—Consolidates and restates overseas tour lengths, poli-

cies on rotation, and restrictions on overseas movement of dependents of naval personnel.

No. 1500.25F—Announces convening dates for classes at training activities under the management of the Chief of Naval Personnel and certain schools of other services for fiscal year 1961.

No. 1416.2D—Makes available information and instructions regarding qualifications of officers (except captains) selected for promotion to grades above lieutenant (junior grade) and to commissioned warrant officers.

No. 1440.10B—Provides instructions for the final disestablishment of the Aviation Electronicsman (AL) rating for all personnel on active duty, including TARs.

No. 1611.11—Includes in the present fitness report form an evaluation of an officer's sense of moral responsibility without changing the basic format of the report form.

Notices

No. 1120 (10 December)—Invited applications from certain permanently commissioned USN line officers for designation for engineering duty, aeronautical engineering duty or special duty, and invited USNR officers, both active and inactive, for augmentation into the Regular Navy with these duties.

No. 1306 (11 December)—Announced establishment of the enlisted personnel distribution office, continental United States.

No. 1440 (17 December)—Announced opportunities for qualified personnel to be changed directly to the Photographic Intelligenceman (PT) rating.

No. 1418 (21 December)—Through Change No. 1 to BuPers Notice 1418 of 27 Oct 1959, deleted the service-wide requirement for advancement to HM3 on February Navy-wide examinations.

No. 5390 (21 December)—Informed commands of the availability and distribution of *Principles and Problems of Naval Leadership* (NavPers 15924). Also provided a current listing of materials prepared in the Bureau of Naval Personnel which are specifically designed to assist in leadership emphasis and development.

No. 5390 (22 December)—Requested information on methods used and results achieved in the implementation of naval leadership.

WHAT'S IN A NAME

SRF, Guam

It's always good to know you have a local garage around the corner just in case something goes wrong with the family vehicle. The same is true with ships at sea. Although the CO knows there are shipyards in the States, a ship repair facility nearby that can do repairs if they're needed does much for his peace of mind.

For ships operating in the area of the Marianas, the local garage is Ship Repair Facility, Guam. This group was established in January 1945 as the Industrial Department, Naval Operating Base, Marianas. In August 1951 it was made a separate command and given its present name.

In the beginning, SRF, Guam, only serviced locally-based ships. Since early 1958, however, this group has also repaired ships deployed to the Pacific area. It can do the same type work as that performed by many naval shipyards in the States.

Even the organization of SRF, Guam, is basically the same as that of a naval shipyard in the United States. And although it is somewhat limited in personnel and equipment, SRF, Guam, can drydock, overhaul, repair, alter and modify ships and service craft of the Navy and other U.S. government agencies, and can do emergency repairs to privately owned ships on a reimbursable basis.

SRF, Guam, is also responsible for the installation and maintenance of shore based electronics equipment and provides technical guidance on shore electronics problems to all naval activities in the Marianas.

Besides ship repair and electronics responsibilities, however, SRF personnel provide other services to naval activities in the area. The group's diving teams, for example, do a variety of underwater work and the 125-ton floating crane, YD 120, does many heavy lifting jobs for the Apra harbor activities.



Uniform Policy Adopted for Releasing Enlisted Personnel For Entry into College

The Department of Defense has established a uniform policy governing the early discharge or release of enlisted personnel desiring to enter or return to a college, university or equivalent educational institution.

Such releases and discharges have been permissible in the past but there were variations among the services as to the date on which the release could be effective and the criteria governing eligibility.

DOD Inst. 1332.15 eliminates these variations and replaces the separate regulations for each service with a single plan that applies to all branches of the armed forces.

The DOD instruction permits early release or discharge 10 days before the registration date prescribed by the educational institution.

Aliens seeking to qualify for citizenship by completing three years' active military service and Reservists ordered to six months' active duty for training are not eligible for early release under the new policy.

The requirements for an early discharge or release, as established by the Department of Defense, are:

- The school registration date must fall within the last three months of remaining service. Those who will have a Reserve obligation on separation must complete 21 months of active service on their current term.

- The individual's service must not be essential to the mission of his assigned organization.

- Applicants must provide "documentary evidence of their acceptance for enrollment without qualification commencing with a specific school term in a full-time course leading to a baccalaureate or higher degree in a recognized institution listed in Part III of the Educational Directory published by the U. S. Department of Health, Education and Welfare, whose credits are accepted by accredited institutions."

- The applicant must demonstrate his ability and willingness to make the required entrance fee payment.

- The applicant must clearly establish that the specific term for which he seeks release is academically the most opportune and that delay in entering school would cause undue hardship.

SIDELINE STRATEGY

SINCE AIRBORNE EARLY WARNING Squadron Four, better known as VW-4, "bedded down" at NAS Jacksonville in 1952, that outfit has been a leader in station sports. Through the years, the "Cane Hunters" have dominated many intramural leagues, in addition to placing hordes of men on varsity squads.

Other units in the area claim that VW-4 should have a good crop of athletes owing to the size of the squadron. This is partially true, but there are other factors to be considered as well. It seems that VW-4 teams never lack the will and the enthusiasm that are such vital parts of any winning combination.

Although the squadron's size and esprit de corps are factors for VW-4's athletic supremacy, the major reason can be attributed to its never-ending physical training program. This program was not forced upon the squadron's personnel. They requested it. Under this plan, they have organized intra-squadron basketball, softball, volleyball, golf and touch football leagues, and varsity teams as well.

By virtue of this setup, interested but inexperienced personnel are afforded the opportunity to compete in intra-unit sports. And, as might be expected, many of these same players advance to station intramural and then to varsity levels.

★ ★ ★

Speaking of self-improvement, there's a little gal at NAS Moffett who deserves

recognition. She's Caren Martello, the 16-year old daughter of AMC and Mrs. August Martello. Chief Martello's pride and joy is an accomplished diver who has won a number of local and regional diving meets and is considered to be a strong candidate for the 1960 Olympics. According to one of her coaches, Marshall Wayne, 1936 Olympic Diving Champ, "Caren will be one of the top diving champions in the world in another year or two." At the age of 15, she was ranked 11th in the nation.

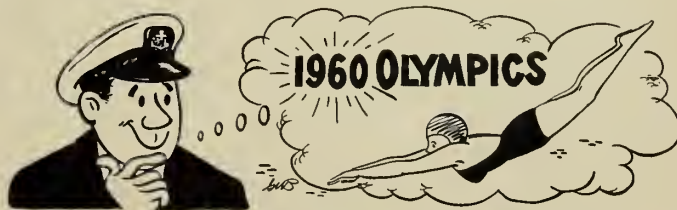
★ ★ ★

A reunion last month of former Hellcat athletes and coaches revived memories of NAS Alameda's famed All-Navy teams of the 1946-49 era.

★ ★ ★

And here's another splash—Clifford Odom, AD2, usn, from NAAS Whiting Field, Milton, Fla., set not one, but two fishing records when he caught a 14-pound, two-ounce smallmouth bass—one full ounce heavier than the world's record—while fishing with a four-pound test monofilament line.

Odom's second record was quite unusual—a record for modesty among fishermen. He earned this when he gave his prize catch to his wife to cook for dinner. And without realizing it, his "fish-eating family" sat down and consumed the world's champ in just about the same length of time as it took Odom to land his prize fish dinner.—H. G. B., JOC, USN.



Learning How to Become an Air Controlman at NAS Olathe

THE CONTROL OF PLANES, either on a carrier or at an air station, is not the sort of thing one learns through the trial and error method—for lives can be lost if an Air Controlman doesn't know his job.

To make sure he can handle his duties in expert fashion, the Navy has put years of hard work into developing sound programs of AC training. Most of this schooling is in the hands of the Naval Air Technical Training Unit at NAS Olathe, Kans., which is responsible for three distinct areas of the AC's education. These are the basic courses (for beginners), the advanced schools (for ACs with field experience) and the specialized courses (for ACs studying particular branches of Navy air traffic control).

The following facts should show you just how thorough that training is.

Basic Courses — Enrollment-wise, the larger of the basic courses is the 14-week *Air Controlman T (Tower) Course*, which is mainly for Navy and Marine students fresh from boot camp. (In addition, designated ACWs, who are eligible for shore duty upon completion of their first tour of sea duty, are cross-trained through the ACT "A" school if they meet the obligated service and other requirements.) Its first three weeks are devoted to basic airman subjects, plus a new course in Controlled Reading (designed to teach the student to read more effectively). The fourth and fifth weeks feature such important foundation subjects as Air Traffic Rules and Aids to Air Navigation.

The next three weeks take in Communications, Weather Observations—and Airport Traffic Control, which gives the student a chance to practice ANC (Army-Navy-Civil Aeronautics) air control procedures in a primary laboratory. The ninth and tenth weeks are devoted primarily to Airway Traffic Control, ANC procedures for route control and methods of mechanical (strip) and radar control.

Since ACs are assigned to operations offices and flight planning rooms, weeks 11 and 12 are designed to train the student for the duties he will perform there. During this pe-

riod he learns procedures; studies military, joint and civil publications for the control of air traffic; works in a simulated Navy operations office; and plans typical flights, using current weather data, in a simulated flight planning room.

The last two weeks of the Air Controlman T Course are devoted entirely to practical application. In what are called advanced laboratories, the student is taught to combine ANC and military procedures in control towers, operations offices, a military flight service and an air route traffic control center. Although the flights the student handles are only simulated, standard Navy tower equipment is used, and this "make-or-break" period of training thoroughly conditions the student.

All ACs must pass the written airman examination (Form ACCA-578-A) for Control Tower Operator (one of the two times during the student's training that he is examined by an official from the Federal Aviation Agency). Attrition rates and student failures run quite high during the course, varying between 14 and 29 per cent. It's normal for a considerable number of students to run into setbacks before they completely master the subjects.

The other basic course is *Basic Air Traffic Procedures*. Especially designed for students who do not have experience or training in air traffic control, this is a prerequisite for the specialized Ground Controlled Approach Controller Course. The course offers four weeks of intensive instruction in Air Traffic Rules, Air Navigation Aids, Airport Traffic Control, Basic Air Naviga-

tion, Air Operations Office Procedures, Airway Traffic Control and Weather Observations.

Advanced School—The *Air Controlman School, Class B*, is the only training program at Olathe that has the status of an advanced school. Lasting 12 weeks, it is designed to prepare the AC2 for advancement to first class or chief by bringing him up-to-date on all current air traffic control procedures, both military and civil. In this school, where the practical work is primarily concerned with approach control, theory is studied and "reasons why" are thoroughly explored. Students are usually assigned to the school upon normal rotation, and attend it en route to their new duty stations.

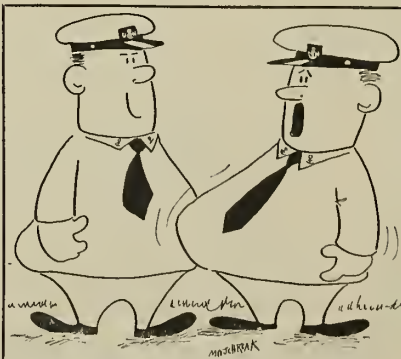
The first few weeks are devoted to a brief review and further study of air traffic control regulations and procedures. All applicable Civil Air Regulations are gone over; common and proposed systems of air navigation, including tacan, loran and such are discussed; flight assistance service is studied; and all known methods of controlling air traffic on or in the vicinity of an airport are thoroughly explored.

Advanced students study weather more completely than the basic students do, so the next part of the course is devoted to this. Atmosphere, altimetry, cloud forms, air masses, fronts, thunderstorms, tropical cyclones and tornadoes are discussed with their effects on the control of air traffic in mind. The student is also instructed in the methods used for reporting and forecasting weather, since a senior AC must be familiar with them.

The third phase of instruction involves a study of the ins and outs of an air operations department, since the advanced students must know how to plan and supervise the work done in operations and flight planning offices. (Many graduates of this school have gone on to help prepare Air Operations Manuals for the operations offices at their naval air stations.)

In the next few weeks the instruction involves the practical application of what the student has previously learned about instrument traffic control. This is done in simulated ap-

David J. Majchrzak, DN, USNR



"Success hasn't gone to our heads!"

proach control "laboratories," where several tower-center installations are used to teach tacan, radar and combination approaches and the intricacies of handling an LF/MF range. Pressure tactics and "saturation traffic" are the order of the day, on the theory that, if a student can handle this heavy traffic, he can perform approach control duties for anybody, anywhere.

After that comes advanced air navigation. Charts, publications, plotting, dead reckoning and the use of the E-10 navigational computer are discussed. Then, the course is concluded with various subjects which round out the program, such as tower and operations office supervision, VHF/UHF direction finding, and weight and balance.

Graduates of this school usually move on to new duty stations state-side or overseas where they will perform operational, supervisory or administrative duties in Navy air traffic control facilities.

Attrition and student failure rates are not so high in this school, since these students are usually dedicated ACs who've already had air traffic control experience and who've survived the screening a would-be AC goes through at the Class A school level.

Specialized Training — There are three specialized courses now being conducted for the training of Navy-men who work in the field of air traffic control. These are the *Ground Controlled Approach Controller Course*, the *Carrier Controlled Approach Course* and the *Air Traffic Control Course, Class "O,"* for prospective air traffic control division officers.

The first of these is for the training of the radar controllers who guide aircraft making landing approaches when visibility is poor. The training takes six weeks, starting off with two weeks on the fundamentals of the radar used in air traffic control. This takes in the working of the system, its components, scope presentations, patterns, types of equipment and control procedures.

The second two-week period is devoted to practical laboratory training. After becoming familiar with GCA surveillance simulators and operating positions, the students practice until they are near-perfect in

WINTER SHORTWAVE SCHEDULE

AFRS NEW YORK

U.S. ARMED FORCES PRESS, RADIO AND TELEVISION SERVICE

GMT	SUNOAY	MONOAY	TUESOAY	WEONESOAY	THURSOAY	FRIOAY	SATURDAY
1430	DATELINE NEW YORK	OATELINE NEW YORK	OATELINE NEW YDRK	DATELINE NEW YDRK	DATELINE NEW YORK	DATELINE NEW YORK	DATELINE NEW YORK
1500	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS
1515	SPDRTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPDRTS PAGE	SPDRTS PAGE
1530	THE LEADING QUESTION	THE JACK PAAR SHOW	THE JACK PAAR SHOW	THE JACK PAAR SHDW	THE JACK PAAR SHOW	THE JACK PAAR SHOW	AMERICA'S BUSINESS IN REVIEW
1600	(NEWS BRIEFS) P A N O R A M A	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(NEWS BRIEFS) P A N O R A M A
1605		MANHATTAN HI-FI	MANHATTAN HI-FI	MANHATTAN HI-FI	MANHATTAN HI-FI	MANHATTAN HI-FI	
1630		FACE THE NATION	ESCAPE	THE LAST WORD	*THEY FOUGHT ALDNE	REPDRT FROM THE U.N.	
1700	NEWS -05-						NEWS -05-
	P A N O R A M A	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	P A N O R A M A
1715		FOR THE LADIES	QUIZVILLE	* THE OOAD SEA SCROLLS	OPEN FILE	QUDTE - UNQUOTE	
1730		THE SEARCH	HOBBY SHOP		AT THE MOVIES	VIEWPOINT	
1745	SPORTS TDDAY	SPORTS TOOAY	SPORTS TOOAY	SPORTS TOOAY	SPORTS TOOAY	SPORTS TOOAY	SPORTS TOOAY
1800	(NEWS BRIEFS)	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(NEWS BRIEFS)
1805	P A N O R A M A	P A N O R A M A	P A N D R A M A	P A N O R A M A	P A N O R A M A	P A N O R A M A	P A N O R A M A
1900	NEWS -05-						NEWS -05-
1905	P A N O R A M A	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	P A N D R A M A
1915		WORLD OF SPORTS	WORLD OF SPORTS	WORLO OF SPDRTS	WORLD OF SPORTS	WORLD OF SPORTS	
1930		SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT DN A STAR	
2000	(NEWS BRIEFS)	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(NEWS BRIEFS)
2005	P A N O R A M A	MEET THE PRESS	NAME THAT TUNE	OICK CLARK BANOSTAND	WHAT'S MY LINE	CAPITOL CLOAKROOM	P A N O R A M A
2030		WORD PLAY	WORD PLAY	WORD PLAY	WORD PLAY	WORD PLAY	
2100	NEWS -05-						NEWS -05-
	P A N O R A M A	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	P A N O R A M A
2115		HOUSE PARTY	HOUSE PARTY	HOUSE PARTY	HOUSE PARTY	HOUSE PARTY	
2130		CELEBRITY TABLE	CELEBRITY TABLE	PRESIDENT'S NEWS CONFERENCE	CELEBRITY TABLE	CELEBRITY TABLE	
2200	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION
2215	ARMOED FORCES OIGEST	A M E R I C A ' S -- B U S I N E S S					BEHIND THE STORY
2220		FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	
2230	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL
2245	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF
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1530-2245 17.78 Mags							

the art of finding aircraft and directing them to pre-determined points by radar. Then, the trainees progress to the precision radar laboratory, where radar targets are so well simulated on the students' practice scopes that the approaches seem strikingly realistic.

In the last two weeks of the course, the student works in operational GCA units of the several types available for service use. Both conventional and jet aircraft fly actual GCA patterns and make complete practice approaches. Each student must perform a required number of successful approaches before graduation. This is the real thing. VFR/IFR and emergency approaches are practiced until they become second nature to the trainee. Graduates of the course go on to help man Navy and Marine Corps GCA units scattered all over the world.

The *Carrier Controlled Approach Course* is designed to furnish the Navy's major aircraft carriers with qualified controllers for their CCA units. Although GCA and CCA involve similar radar techniques, there are some important differences in procedure, since a rolling ship makes elevation information hard to come by.

The CCA Course is a short two weeks of concentrated training. Most of the students are qualified in GCA. They spend the better part of the first week learning about the purpose of CCA, the equipment used, operating positions, normal and emergency procedures, patterns and the operation of such associated equipment as tacan and the mirror landing system. Since the communications setup used with CCA is quite complicated, this equipment and the procedures used with it receive considerable attention.

The second week is primarily devoted to practice with the CCA simulator, an elaborate reproduction of a complete CCA unit.

Although the *Air Traffic Control Officer Course* is not officially designated a specialized course, it is grouped with them here because it is neither a basic course nor an advanced one. It is designed to provide aviation officers with the theoretical and practical knowledge they need to perform the duties of Air Traffic Control Division Officers and to provide operational training for pros-

All Navy Cartoon Contest
Armando Trajano, DK1, USN



"Now here thissss . . . Prepare for Captain's Inspection!"

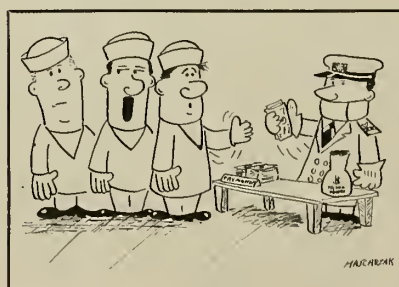
pective officers-in-charge of GCA units. The instruction lasts 10 weeks.

The first four weeks are used to familiarize the students with air traffic control regulations—Civil Air, ANC, Criteria for Standard Instrument Approach, the Flight Planning Document, FAA-ATM Manuals, the U. S. Standard Manual of Radar Air Traffic Control Procedures and OpNav Instructions, to mention just a few. The officers also study and discuss methods for the successful administration of an air traffic control division and perform simulated approaches in approach control labs.

The last six weeks are devoted to GCA training, in which the officers follow the same curriculum as that given to regular students in the GCA Course. Graduates of this school may be assigned as approach controllers, officers-in-charge of GCA units, Air Traffic Control Division Officers, Assistant Operations Officers or Radar Air Traffic Control Center Officers.

The schools and courses at Olathe have been used to train men and women of the Regular Navy, the Naval Reserve, the Marine Corps, the Marine Corps Reserve, the Coast Guard and the Army. (The co-edu-

David J. Majchrzak, DN, USNR



"Germs!"

educational training programs are the Air Controlman T Course and the Advanced Air Controlman School.) In addition, foreign students from Japan, Great Britain, France, Belgium, Canada and Argentina have been trained in the various schools and courses.

Upon transfer, each graduate has a yellow card labeled "Graduate Evaluation Report" placed in his record. This card, which contains a brief resume of the training received, is returned to the school one year later with comments on the training by the field air traffic control facility to which the graduate has been assigned.

The comments that have been turned in make it pretty plain that Olathe is turning out graduates who really know their jobs.

Advancement to Top Grades Of Senior and Master Chiefs

As a result of the August 1959 E-8 and E-9 examinations, 2315 CPOs have been promoted to Senior Chief Petty Officer (E-8) while 356 E-8s were awarded their second star denoting promotion to Master Chief Petty Officer (E-9).

Here's a breakdown by rate of those who were promoted to the top CPO grades on 16 Dec 1959:

RATE	E-8	E-9	RATE	E-8	E-9
ABC	26	3	IMC	1	—
ACC	27	3	JOC	4	—
ADC	171	22	LIC	3	—
AEC	48	6	MAC	10	2
AGC	17	2	MLC	2	—
AKC	27	3	MMC	66	19
AMC	76	11	MNC	7	1
AOC	39	6	MRC	11	3
AQC	12	2	MUC	5	3
ATC	110	13	NWC	3	1
BMC	79	14	OMC	2	—
BTC	41	10	PHC	21	3
BUC	10	2	PNC	52	5
CEC	6	—	PRC	11	2
CMC	7	1	PTC	2	1
CSC	68	13	QMC	44	4
CTC	49	5	RDC	18	8
DCC	28	6	RMC	142	32
DKC	21	2	SDC	23	7
DMC	2	—	SFC	57	10
DTC	19	2	SHC	26	4
EMC	121	17	SKC	93	11
ENC	75	14	SMC	14	4
EOC	6	1	SOC	18	6
ETC	100	14	SVC	1	—
FTC	54	5	SWC	3	—
GFC	5	—	TDC	15	2
GMC	74	8	TMC	36	5
GSC	8	1	UTC	7	—
HMC	133	17	YNC	131	16
ICC	28	4			

DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

Gold Star in lieu of Second Award
 ★ DUFEK, George J., RADM, USN (Ret.), for exceptionally meritorious service to the government of the United States in a duty of great responsibility as Commander United States Naval Support Force, Antarctica, during the International Geophysical Year (1957-1958).



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

★ HAMILTON, Leo L., LT, USN, for exceptionally meritorious conduct in the performance of outstanding services to the government of the United States in the planning, development and establishment of a United States Naval Aircraft Maintenance Program during the period July 1946 to July 1959. Exercising unusual diligence, initiative, and resourcefulness, LT Hamilton worked to devise, develop, and obtain approval for an aircraft maintenance program attuned to current and projected needs of the U. S. Navy, making a valuable contribution to the defense effort of the United States.



DISTINGUISHED FLYING CROSS

"For heroism or extraordinary achievement in aerial flight . . ."

★ CARLQUIST, Roger, LCDR, USN, for extraordinary achievement in aerial flight as a Project Pilot on the F3H aircraft at the Naval Air Test Center, Patuxent River, from October 1958 to March 1959. Assigned the task of evaluating the F3H aircraft under extremely hazardous and adverse weather and flight conditions, Lieutenant Commander Carlquist was instrumental in obtaining invaluable information as a result of these flights. On one occasion

when engine seizure was imminent and the fire warning system indicated fire, he chose to remain with his aircraft, and carried out a successful landing. During another flight, when all the pressure flight instruments failed and the aircraft was badly damaged by hail and ice, he again made a successful landing, thereby permitting a detailed engineering analysis of the damaged engine.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ DAY, Lawrence C., LT, USN, for heroism following an emergency landing of his aircraft at the Naval Air Station, Argentia, Newfoundland, near midnight on 2 Apr 1959. Immediately after landing, the aircraft began to disintegrate and came to rest in an inverted position as intense fires broke out. With the pilot's window as the only means of escape for members of the crew forward of the galley, Lieutenant Day, as Pilot Plane Commander, crawled through this window and then assisted two other crew members in escaping. Although forced to leave the vicinity of the pilot's window because of the intense heat, Lieutenant Day returned to assist three more men from the flaming aircraft before he was forced once again to retreat from the searing heat, moments before the entire aircraft exploded.

★ GROVES, John G. Jr., LT, USN, for heroism following an emergency landing of his aircraft at the Naval Air Station, Argentia, Newfoundland, near midnight on 2 Apr 1959. Immediately after landing, the aircraft began to disintegrate and came to rest in an inverted position as intense fires broke out in major segments. With the pilot's window as the only means of escape for members of the crew forward of the galley, LT Groves, acting as First Co-Pilot, was assisted through this window by his Pilot Plane Commander. LT Groves aided in the removal of the Flight Engineer, and although forced to leave the vicinity of the pilot's window because of the intense heat, returned to assist a crew member through the window, seconds before the entire aircraft exploded.

★ KEMP, John B., AM3, USNR, for heroism in rescuing three persons from drowning in waters off Seal Beach, California, on the afternoon of 13 Jun 1959. Chancing upon three men hanging onto the sides of a swamped and capsized fourteen-foot open outboard while he was en route to shore with two others in a cabin cruiser, Kemp dived into the treacherous waters and, despite waves running five feet in height, succeeded in carrying a line to the overturned craft which was tossing within thirty feet of a rock jetty. While the cruiser was attempting to tow the capsized boat away from the rocks, Kemp aided the three exhausted survivors in remaining afloat. After approximately fifteen minutes, one of the victims was lifted aboard a second cruiser which was standing by in the area. Kemp remained in the water with the other survivors until their rescue was completed.

★ NELSON, Richard E., AO1, USN, for heroism as a crew member of a patrol plane in Electronic Countermeasures Squadron One during a routine training mission over international waters in the Sea of Japan on 16 Jun 1959. When two MIG fighter-aircraft suddenly executed a series of attacks against the patrol plane, wounding the tail gunner and inflicting extensive damage, Nelson administered first aid to the wounded man and shielded him with his own body during one of the attacks, while bullets pierced the fuselage of the plane. In addition, he took charge of the after part of the aircraft, organized the crew members, and established evacuation stations in case ditching became necessary.

★ WILBER, Walter E., LT, USN, for heroic conduct while serving on board USS *Essex* (CVA 9) on the morning of 28 May 1959. When a fighter type aircraft, upon landing, crashed into several other planes parked abaft the island on the flight deck of *Essex*, resulting in an immediate explosion and intense fire, LT Wilber attempted to extinguish the blazing clothing of one of the men in the vicinity of the burning airplanes by using his own body as a smothering blanket, and by removing and using some of his own clothing to extinguish the flames. He then went under one of the burning aircraft to assist an injured man to safety. Until more experienced medical assistance was available, he capably directed the evacuation of the casualties from the scene of the fire.

TAFFRAIL TALK

THIS ISSUE IS AN UNUSUAL ONE—but one, we feel, that is timely.

We have used the term "cold war" throughout. Perhaps there is a better term and one that could be more closely defined. However, we know you'll see the over-all picture and will see what your part is. And your part is a mighty important one. The individual Navyman is, today, more important than he has ever been in the past. If ever there was a need for an all hands evolution, this is it.

Talking about individuals, it might interest you to know that this is an individual type of issue. Here's the background: CDR S. H. Alexander, Secretary of the Navy-Marine Corps Cold War Advisory Panel, called us to see if we could help get the whole Navy to think about the cold war. "Sounds like a good idea," we said.

So, our staff gathered together. Ideas flew around like snowflakes. Then, each writer chose a subject in which he had an interest, and went about writing it. The articles, as you will agree, are highly individualistic. They represent, we may add, the individual thinking of each writer. The writer alone decided what and how he would write in this issue. We figured that was the only honest way to do it.

Of course, we did have advice and consent of our seniors. RADM William Miller, for example, read every article for us and gave us a number of suggestions, which we incorporated. Other senior officers willingly gave us their backing.

Let's give you just a little more background. ALL HANDS is fortunate in that the staff is always free to work out problems in its own way. The Chief of Naval Personnel, the Chief of Naval Operations and the Secretary of the Navy give the staff a free hand. Ideas and material can come from any place—and the staff takes every suggestion under consideration. A skipper of a ship may have an idea; a third class petty officer may write in with a suggestion; a desk in BuShips or BuMed or CNO may send over a memo with an idea.

Article ideas come from the Fleet and from within our staff. The informational and career material comes mainly from within this Bureau. The assistants to various commands help us by tipping us off what is new as to policy, hardware, plans, and so on. The hundreds of letters that come in each month help us decide if we're getting out the word and what more is needed for constant improvement of the service. ALL HANDS Magazine, although an instrument of the Chief of Naval Personnel, is, in a larger sense, a means of telling the Navy about the Navy.

Don't hesitate to tell us what you think of this or any other issue. Drop us a line to tell us what you want to see in your magazine. We do, of course, tell the Fleet a lot of what is going on in the Department of the Navy, but we also, in a way, tell Washington what is going on in the Fleet.

We hope you will be a "Questioning Navyman." We hope you'll read these issues and think and talk about them. Are you getting the word? Are we hitting our target in informing you of career matters? Why not drop us a line, and give us the benefit of your thinking? You're part owner of this magazine, so exercise your option—influence us.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS The Bureau of Naval Personnel Information Bulletin, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Use of funds for printing of this publication is approved by the Director of the Bureau of the Budget 25 June 1958. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor. DISTRIBUTION: By Section B-3203 of the Bureau of Naval Personnel Manual, the Bureau directs that appropriate steps be taken to insure that all hands have quick and convenient access to this magazine, and indicates that distribution should be effected on the basis of one copy for each 10 officers and enlisted personnel to accomplish the purpose of the magazine.

The Bureau invites requests for additional copies as necessary to comply with the basic directives. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

Normally copies for Navy activities are distributed only to those on the Standard Navy Distribution List in the expectation that such activities will make further distribution as necessary; where special circumstances warrant sending direct to sub-activities the Bureau should be informed.

Distribution to Marine Corps personnel is effected by the Commandant U. S. Marine Corps. Request from Marine Activities should be addressed to the Commandant.

PERSONAL COPIES: This magazine is for sale by Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. The rate for ALL HANDS is 25 cents per copy; subscription price \$2.50 a year, domestic (including FPO and APO addresses for overseas mail); \$3.50 foreign. Remittances should be made to the Superintendent of Documents. Subscriptions are accepted for one, two or three years.

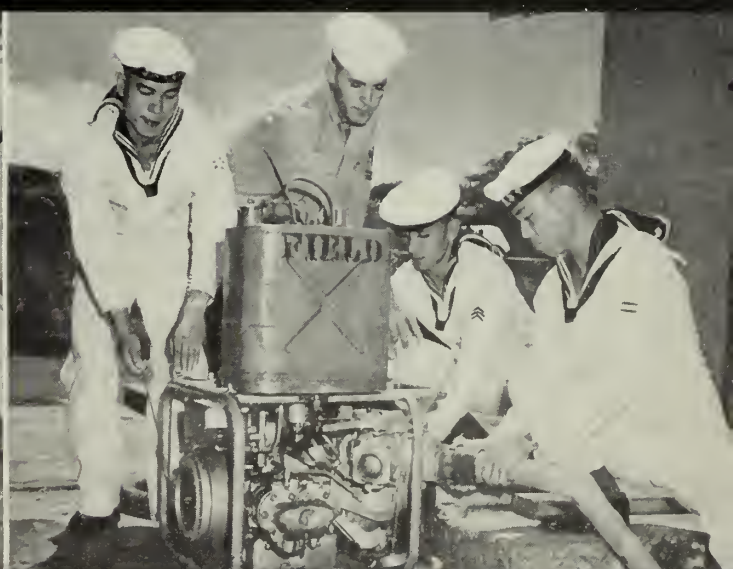
● **At RIGHT: FRIENDLY NAVIES**—The call of the sea and the spirit of freedom form a common bond for sailors the world over. Some typical shots of Navy men of other nations are shown here and on the inside front cover.



Navymen on the signal bridge of a Peruvian DE prepare to hoist the national ensign (left). At right, the Norwegian flag is raised aboard a newly-acquired LSM as Norwegian, American and UN officials look on.



VADM Charles R. Brown salutes Greek sailors in Rhodes (left). At right, the Portuguese Consul-General in New York City inspects the crew of a ship transferred to his country under the Military Assistance Program.



Belgian sailors man their stations in the pilot house of a minesweeper (left). At right, a U. S. Navy damage controlman explains fire-fighting equipment to crew members of a Chinese Nationalist tank landing ship.

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AT
SEA**



ALL HANDS

LORID



This magazine is intended
for 10 readers. All should
see it as soon as possible.
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MARCH 1960

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

MARCH 1960

Nav-Pers-O

NUMBER 518

VICE ADMIRAL W. R. SMEDBERG III, USN

The Chief of Naval Personnel

REAR ADMIRAL A. E. LOOMIS, USN

The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

Assistant Chief for Morale Services

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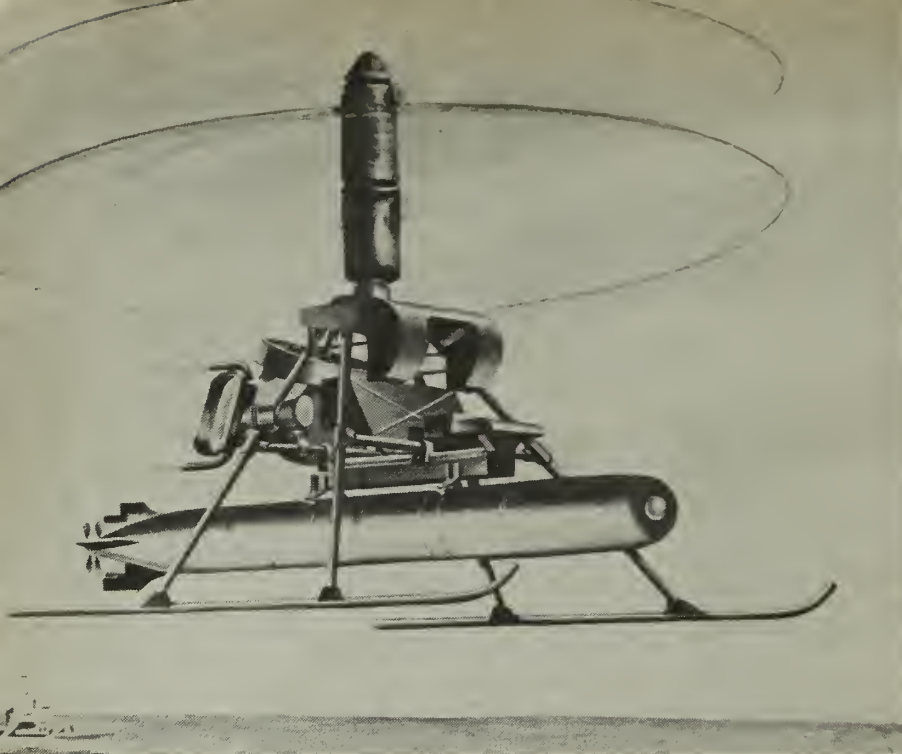
French Crawford Smith, Reserve

Don Addor, Layout

● FRONT COVER: W. E. COLEY, BMC, USN, boss of the CINCPACFLT boathouse at Pearl Harbor, checks the mooring lines used by his trim craft on harbor runs. His assistant on the job is W. V. Meadows, BM3, USN.

● AT LEFT: Unusual night photo of Antisubmarine Carrier USS Bennington (CVS 20) resting in drydock at Hunter's Point Naval Shipyard, San Francisco. Redesignated a CVS, the ship recently completed her overhaul and is getting ready to begin antisubmarine exercises.

● CREDITS: All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.



Mark I and II—

Introducing the FRAM

TAKE 250 VETERAN Navy ships, all in the 14-18 year old age bracket. Add the Navy's world-wide operational commitments, including a vigorous antisubmarine warfare program. Then consider that the Navy doesn't have enough funds to build anywhere near that many new ships. Does it sound like a problem? You're right, it is and a big one.

Most of us, at one time or another, have been in a similar quandary regarding an aging car. Perhaps it needed major repairs—a ring job, new transmission, clutch overhaul, new brakes or a rebuilt engine. Quite possibly it could also have used a new set of tires, and new upholstery, and a paint job would have spruced up its appearance.

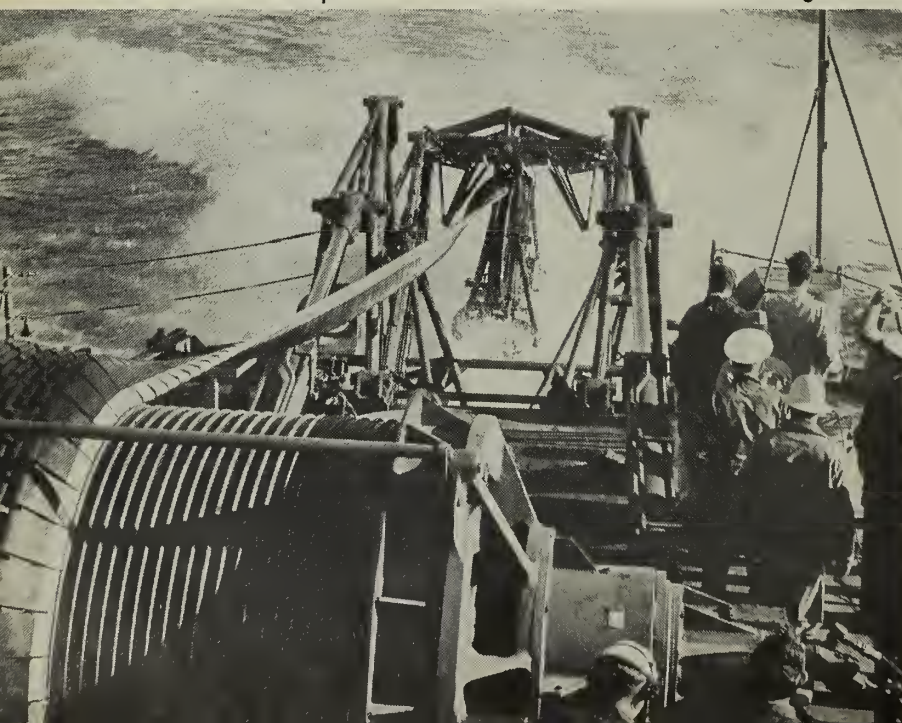
They're all wearing out at the same time. The object of FRAM is to keep them operating until new ship construction can provide replacements.

Any discussion about FRAM should begin by pointing out that the program has two parts—Mark I conversions and Mark II overhauls. The majority of ships will receive the Mark II treatment—repair, replacement and refurbishment of all shipboard components (hull and machinery) to extend their useful life as effective and reliable ships for at least another five years, together with some modernization of the weapons, electronics and communications systems.

Mark I conversion on the other hand, which is much more extensive, is planned for only a limited number of ships, all destroyer types. This will give them an expected additional life of more than eight years. The ASW type of ships will get improved sonar, radar, electronic countermeasures and communications systems. They'll also get new anti-submarine weapons, including DASH—a drone antisubmarine helicopter—with its accompanying hangar, launching and landing platform and control equipment.

The DASH system is designed to add a long range punch to a de-

REEL GONE SONAR — Destroyermen of USS John W. Thomason (DD 760) lower new Variable Depth Sonar dome below thermal barrier during test run.



stroyer's sub-killer arsenal. Briefly, here's how it will work. Once an enemy submarine is detected in the vicinity, the drone helicopter will be launched and guided toward its target by radar. Once over the target, either homing torpedoes or nuclear depth charges could be dropped to destroy the sub.

Another item included in the FRAM treatment is one all destroyer men will applaud—a greatly enlarged, and air conditioned, CIC on DD types.

uss Perry (DD 844), the first ship in the Mark I program, entered Boston Naval Shipyard last spring, and is due to complete yard work in April, 1960.

Over-all plans call for 45 destroyers and 5 escort destroyers (DDE) to get Mark I rehabilitation and modernization over the next four to five years.

Models

Some 150 ships of varied classes will be Mark II'd during the same period—about 100 of them destroyers. The first of these, *uss John W. Thomason* (DD 760), entered Long Beach Naval Shipyard last spring, and has just about completed her yard work.

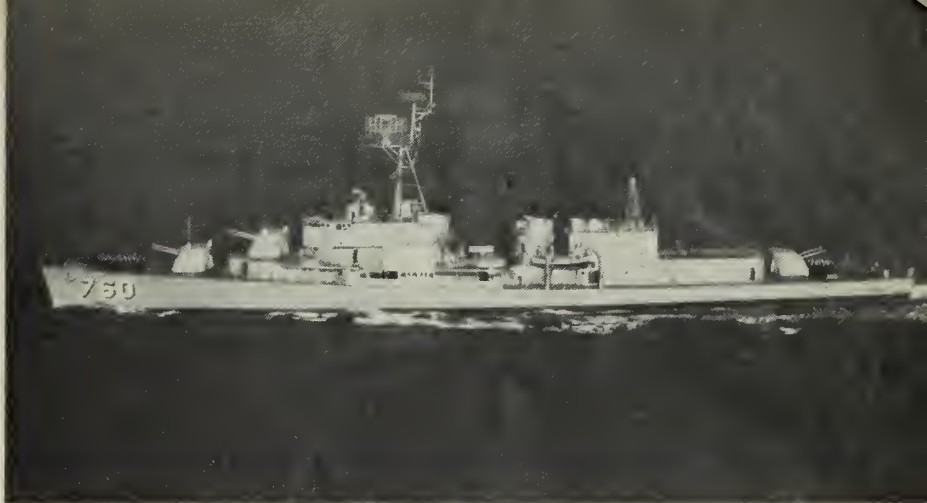
Eighteen other destroyers will begin getting Mark II by 1 Jul 1960, according to present plans.

Seven of them will have the work done at NavShipYd, Norfolk. They are: *uss Zellars* (DD 777); *Charles S. Perry* (DD 697); *Massey* (DD 778); *Lowry* (DD 770); *Stormes* (DD 780); *Robert K. Huntington* (DD 781); *Goodrich* (DDR 831).

Jenkins (DDE 447), *Nicholas* (DDE 449), and *O'Bannon* (DDE 450) are scheduled to enter NavShipYd, Pearl Harbor. NavShipYd, San Francisco plans to take *DeHaven* (DD 727) and *Blue* (DD 744), while *Mansfield* (DD 728) and *Collett* (DD 730) are tentatively scheduled for Long Beach.

Naval shipyards at New York, Charleston, Boston and Mare Island plan to work over *Turner* (DDR 834), *Kenneth D. Bailey* (DDR 713), *Hugh Purvis* (DD 709), and *Lyman K. Swenson* (DD 729), respectively.

The submarine tenders *Fulton*



FRAM JOB — Remodeled with the latest in ASW gear *USS John W. Thomason* (above) sets out to sea. Below: Helicopter is directed onto DD's new flight deck.



WHIRLYBIRD ROOST — *USS Hazelwood* (DD 531) sports new copter deck.





IN THE MILL — USS Blue (DD 744) and USS Lowry (DD 770) are among group of destroyers slated for modernization.



(AS 11) and *Nereus* (AS 17) are currently at Philadelphia and Long Beach, both slated for completion early in 1960. Most of the Mark II program, as it applies to them, involves equipping them to tend nuclear-powered submarines.

ADs, a few LSTs and LSDs, some CVSs and two LPHs are among other classes of ships expected to be included in this Fleet Rehabilitation and Modernization program before its completion.

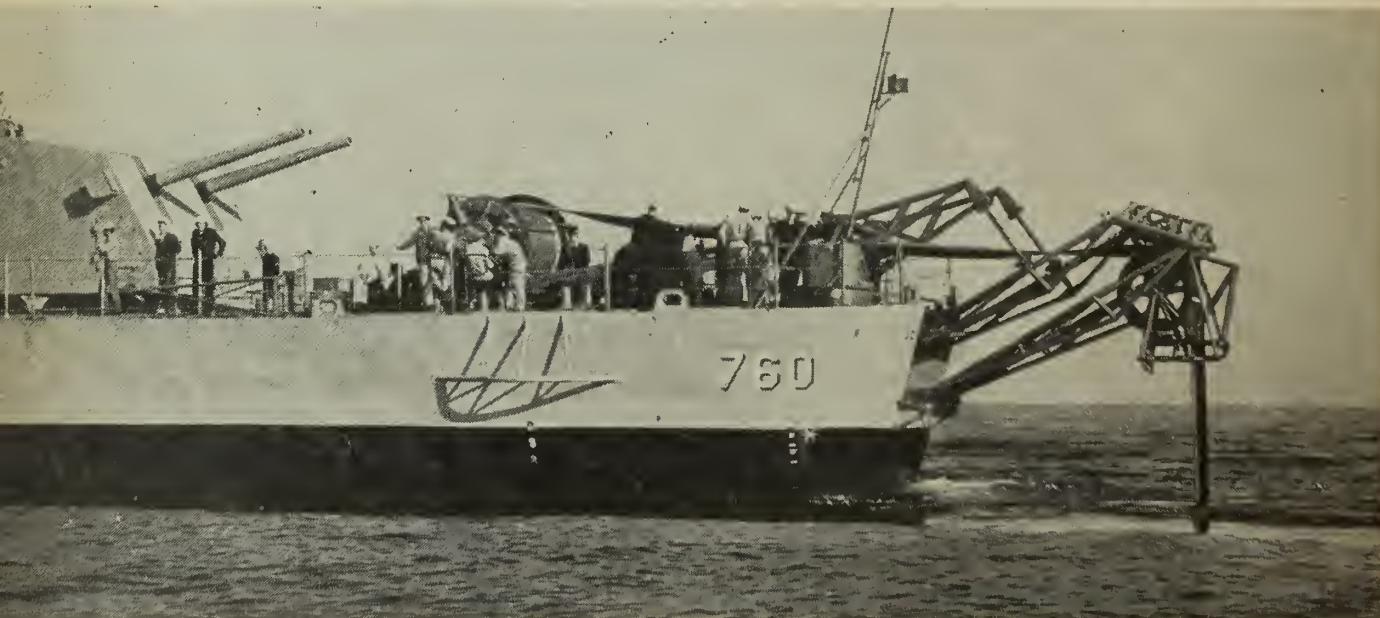
That's the story on FRAM—an ambitious plan to maintain and improve Fleet strength (and a strong challenge to all hands on their part to make it work).

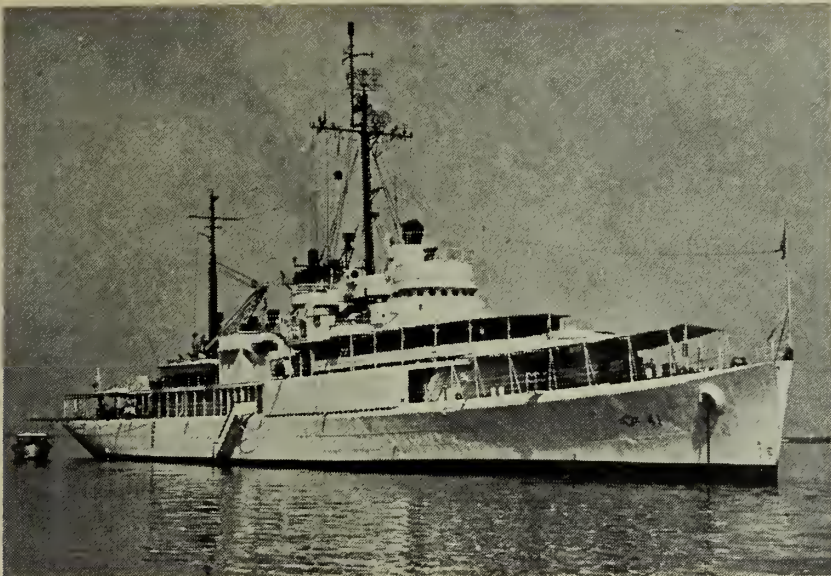
The one big difference in the analogy we drew earlier between overage ships and cars lies in their relative importance. After all, even if we couldn't keep the old gas eater going any longer, we could always take a bus.

Our antisubmarine warfare program, however, involves infinitely higher stakes. If just one World War II vintage ship, operating beyond its normal life span with modern equipment packed in its aging hull, helps seek out and destroy a potential enemy submarine threat to our shores or our Fleet, FRAM will have more than paid for itself.

—Jerry McConnell, JO1, USN.

NEW ADDITIONS — USS Thomason has new profile because of copter hangar (above) and new VDS gear on stern.





WHITE-PAINTED USS *Greenwich Bay* (AVP 41) is well known in Middle East.

Sailing in the Middle East

When *uss Greenwich Bay* (AVP 41) steamed into Norfolk late last year, it had completed its 11th Persian Gulf cruise.

Traveling more than half-way around the world, *Greenwich Bay* visited Portugal, Spain, Turkey, Aden, Iran, India, Ceylon, Muscat, Ethiopia and Italy.

During this tour of duty, *Greenwich Bay* acted as flagship for Rear Admiral James R. Lee, USN, Commander, U.S. Middle East Force. Admiral Lee relieved Admiral M. F. D. Flaherty, USN, as COMIDEASTFOR aboard *Greenwich Bay* in the Persian Gulf.

This all-white AVP has made a cruise to the Middle East every year since 1949. Over the years, this small ship has become a well known and familiar sight in ports along the Persian Gulf, Arabian Sea and Indian Ocean. This year, as in years past, the "*Green Witch*" continued her active participation in the President's People-to-People program. An estimated 3000 or more foreign nationals toured this American ship on her recent cruise. Guests included civic groups, school children and political leaders of almost every country the ship visited.

One such port was the small Indian naval training center of Vishakhapatnam on the east coast of India. There, many members of the Indian navy were invited to see what the U.S. Navy ship looked like. In return many members of the crew

were invited into the homes of Indian navy personnel.

When the ship left that port, an official plaque of the Indian naval base was presented to the officers and men of *Greenwich Bay* as a souvenir of the visit. In return, the men of "*Green Witch*" also left a ship's plaque for the men of the naval training center.

At her Persian Gulf base—Bahrein Island—*Greenwich Bay* contributed money and manpower to the American Mission Hospital in the city of Manama. Crew members not only donated their free time to repair, paint and mend the buildings and grounds of the Mission Hospital, but also donated toys to the children.

The ship's company also gave a completely refinished piano to the American Mission. Perhaps most important of all, the men from this ship were practically a floating blood bank for the hospital. Several times, volunteer donors were rushed to the hospital to give blood.

Greenwich Bay is one of three seaplane tenders which yearly rotate as flagship for COMIDEASTFOR. All three of these ships—*uss Greenwich Bay*, *Valcour* (AVP 55), and *Duxbury Bay* (AVP 38)—are easily recognized because each is painted white. The unusual paint job has proved advantageous in the tropical climate of the Persian Gulf area. Temperatures of over 100° F are often recorded.

—Anthony J. Malta, JO3, USNR

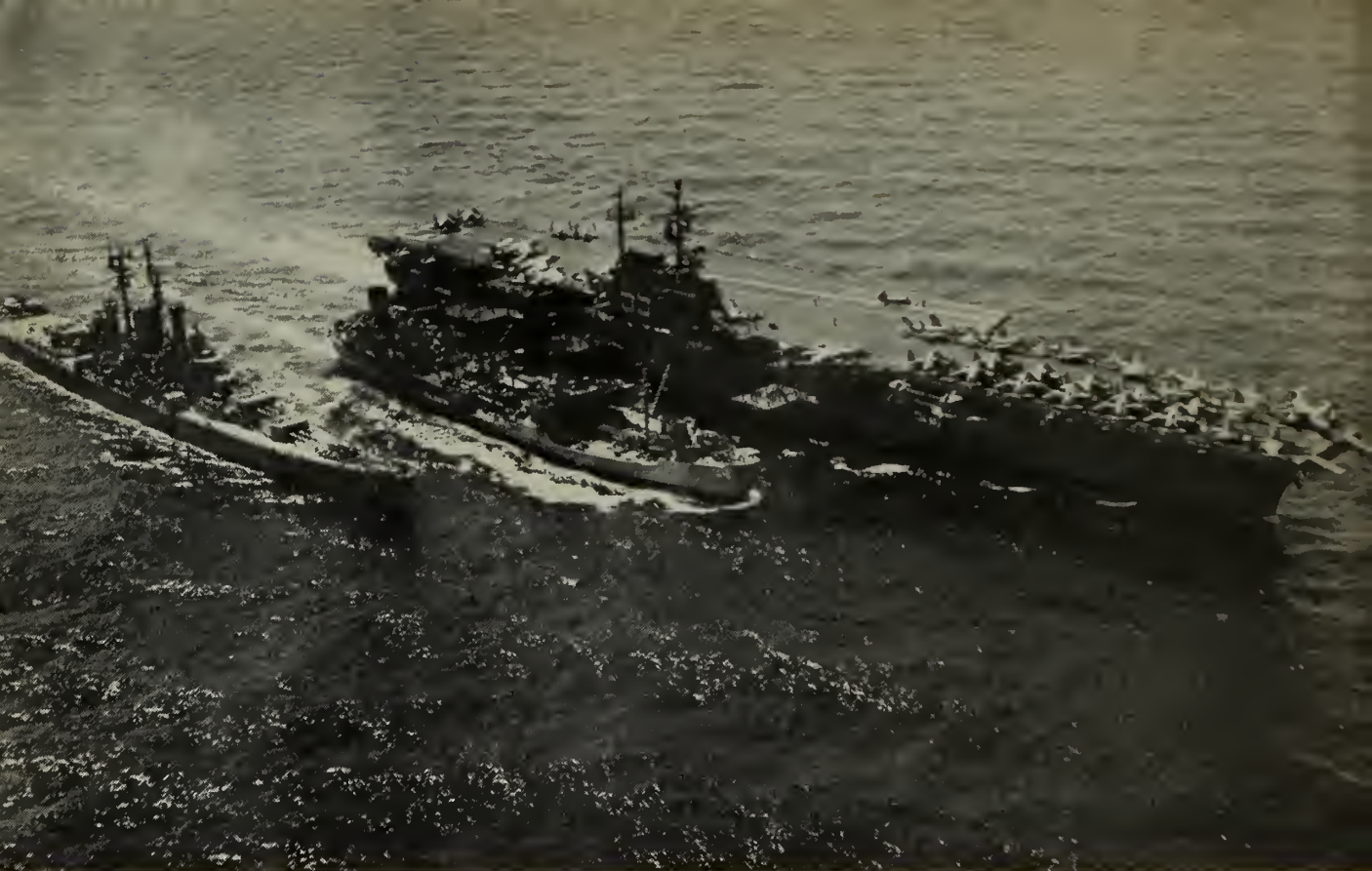


NEW FRIENDS—E. Greene, GMC, (top), eats with Indian navyman. Below: Youth of India tour *Greenwich*.



SALTY TALK—S. Cressey, DK1, chats with Indian navy counterpart. Below: Citizens of Madras, India, tour ship.





PASS THE PETROL PLEASE—USS *Caloosahatchee* (AO 98) refuels USS *Forrestal* (CVA 59) and USS *Salem* (CA 139).



DECK SEAMEN get lesson in marline-spike seamanship. Below: Preparing dinner on the USS *Caloosahatchee*.



AO Keeps the Fleet

AN AO has one main reason for existence. That is to refuel naval ships at sea. A Fleet oiler refuels in any kind of weather, at any hour of the day and night all over the oceans of the world.

Such a ship, sailing out of Newport, R. I., is USS *Caloosahatchee* (AO 98).

Its interior is a plumber's delight of tanks, valves, pipes, drains, and pumps, and it is designed to carry 115,000 barrels of petroleum prod-

ucts, including black oil, diesel oil, aviation gas and jet fuel.

Topside an oiler is a jungle of booms, cables, steam winches and rubber hose. A sea story has it that years ago a first class boatswain's mate, who reported for duty aboard *Caloosahatchee* from a destroyer, took one look at the rigging and went over the hill. True or not, the story points up the complexity of the oil transferring gear. There are eight booms for refueling at sea. Usually

MUSIC TO OIL BY—Carrier's band serenades crew of oiler during refueling.



four are in use at any one time.

A fuel transfer requires most of *Caloosahatchee's* 233 officers and enlisted men to be at their fueling stations many hours at a time. Fuel is pumped to a carrier or destroyer alongside at a rate of 2000-5000 barrels per hour through two 300-foot lengths of rubber hose. The procedure for a ship taking fuel is to ease alongside at a mean distance of 40 yards and receive a hauling line which is made fast to a steel cable. When secured to the receiving ship, the cable bears the weight and strain of the hose which is attached by sheaves.

Fueling begins immediately at bow and stern when the hose nozzle is shoved into a receiving trunk. At the end of a day's fueling operations, an oiler may spend another five hours replenishing her oil from another oiler. "Consolidating," oilerman call it.

In several respects fleet oiler life has advantages over that of many other Navy ships. The bulk of an oiler permits elbow room for the crew. An icebox the size of a small cottage insures plenty of fresh pro-

on the GO

visions during the long stints at sea. No sailor could ever be induced to say shipboard chow is just like Mom used to cook, but after long hours of fueling, a well done steak, pie and strong, black coffee make a man feel as though he's right back home.

This oiler's pride is her softball team.

According to Russel "Lou" Lavigne,, GM2, the team manager, the "Oilers" have played ball and won in just about every port in the Mediterranean area against almost every destroyer or carrier they have operated with. Their season's score is 22 wins and two losses.

Caloosahatchee was commissioned in October 1945 and is now the command of Captain F. B. Gilkeson of Bluefield, W. Va. Her latest cruise was completed 31 August after six months' duty with the Sixth Fleet. During that time 98 fueled 332 ships and steamed 34,000 miles. Oilerman enjoyed liberty in such ports as Cannes, France; Barcelona and Valencia, Spain; San Remo, Italy; Athens, Greece, and Goleuk, Turkey.

—Jared E. Goetz, JO3, USN.

MARCH 1960



WET WORK—Heavy seas in the Mediterranean make refueling of cruiser a good test of seamanship. Below: Deck hands swing refueling hose into place.



HOSE NOSE—Network of lines brings fuel hose across gap between ships.





FISH poses with F. Dixson, BM3.

Here's a

THERE'S SOMETHING about the small seagoing ships in the Navy which inspires a certain nostalgia in seafaring men. That feeling is not easy to pinpoint and it is even more difficult to get a seasoned crew member to talk about it—unless you too are an old salt.

But when you first climb aboard one of these ships and set out for a cruise to some distant port, you find out for yourself.

Take *uss Banner* (AKL 25), for example. She's one of the Navy's three light cargo ships still active and in commission. *Banner* operates out of Apra Harbor, Guam, while

the others—*uss Estero* (AKL 5) and *uss Mark* (AKL 12)—are homeported in Sasebo, Japan, and Subic Bay in the Philippines.

No doubt you have never heard of these three ships. You'll never read much about them. They are not headline-making ships. They go about their jobs day in and day out and receive little or no recognition. Their work is not glory-making, but is essential. It's cargo—they deliver it or pick it up and then start all over again.

Sailing from Guam, *Banner* may head for Chichi Jima, a small rock about 800 miles north of Guam. Or

it might be Hong Kong, 1800 miles west. Regardless of her next port of call, her job is the same—deliver and pick up cargo.

Banner is an elegant little lady. But her beauty is fading and you can see that she's had a long, hard life in the choppy Pacific. (With due respect, we won't reveal her age.) After years of hard work she is almost ready for retirement, but the Navy still needs her services. So, like any lady that's wanted, *Banner* spruces up to continue her life-long tasks and puts to sea again.

At the conn you'll find *Banner's* skipper, LT George C. Lowry, USN.

LITTLE LADY—USS *Banner* (AKL 25) is one of three of her class still in service. Above: *Banner* pulls into Hong Kong.





SALTY SAILORS—Crew members man wheel (left), check engineroom gear (center), and send message (right).

Sample of Small Ship Duty

As you observe him performing his duties you can tell that *Banner* is in good hands, will get where she's going and arrive in good shape.

Getting statistical for a moment, we should say that *Banner* is only 176 feet long. With her full complement, she is lucky to carry 34 men aboard. Her top speed is 12 knots. That's slow enough but as little as a 16-knot wind will knock this down considerably. When that happens, it means plenty of bounce, lots of roll and an uncomfortable time for all.

Once aboard, you have a chance to meet *Banner's* crew. Typical of her petty officers is 27-year-old Forrest Dixon, BM3, USN. In charge of the deck force, Dixon has a personality that makes him well liked. His home currently is Guam, where his wife and four children live. Sometimes he is away for weeks at a time, but being from a seagoing Navy family, Mrs. Dixon knows what to expect. He doesn't like the prolonged absences any more than anyone else, "But it all counts on 20."

Then there's Seaman Kenneth Blase, a 20-year-old nearing the end of his first cruise. Finding himself restless at home in San Jose, Calif., he took the Navy's offer to "join up and see the world." He's not certain about the future as yet. Maybe, he'll make a career out of the Navy. But there's plenty of time to think about that during long hours at sea. Blase is one of *Banner's* messmen.

Warrant Officer Gerald Broe, USN,

is one of the most popular officers aboard. Off duty, he always has a crowd around, whether he's discussing photography or recounting stories about a Navy career that has taken him all over the world in almost every type of ship the Navy has put to sea.

Meanwhile *Banner* steams along, slowly and surely. Routine at sea is somewhat similar to that of any other ship. The ever present chipping hammers bang away at the rust gnawing at the gray paint that covers the hull and decks.

Dixon's deck force seems to be on the go all the time. At the same time other crew members are occupied below decks with the many chores required to keep a ship going. At night, activity lessens and the starry tropical sky provides a backdrop for movies on the boatdeck.

Most days are calm and sunny on the Pacific, but sometimes morning breaks with a dark, unfriendly look. Today there is a cool northeast wind coming up slowly and beginning to toss *Banner* about. Although everyone knows what to expect, it becomes official when the wires in the radio shack begin to hum with storm warnings.

The barometer is dropping fast and *Banner* shudders as she slams into the mounting swells on the rim of the disturbance. Dinner tonight will be a topsy-turvy affair.

But the gallant old lady resists the storm the best she knows how

and continues to plow slowly ahead toward her destination.

By midnight, however, conditions are somewhat worse. Seaman Kenneth Karr, USN, has the wheel watch. He's a stocky lad but could use a few more pounds during this watch as it takes all his strength and then some to keep the small ship on course. Every swing of the rudder seems to be deliberately countered by a reverse move from the sea.

The captain, attempting to skirt the storm, decides to alter his course. Steersman Karr is ordered to swing *Banner* around several degrees and come up on Batan from the south. Now with the mounting swells on her starboard quarter *Banner* rides somewhat easier. Storm-tossed crew members, trying to sleep below, are now able to doze a little.

It's a long night. But radio weather reports, from Fleet Weather Central at Sangley Point in the Philippines, bring good news. *Banner* and the storm are going separate ways.

By morning the seas remain heavy but the sun shines brightly overhead. Batan Island is a beautiful sight. *Banner's* crew stands at the rail and eyes the island's 3000-foot peak that was ringed by layers of grey-blue morning mist.

After a short stopover, *uss Banner* will be on her way again. Next stop: Hong Kong.

As you can see, "small ship duty" gets under your skin.

—J. A. Williams, JO1, USN



SHOP TALK—'Valley' men chat with sailors from Canadian carrier *Bonaventure*. Left: Trio climbs Citadel Hill.



HALIFAX GREETINGS—USS *Valley Forge* (CVS 45) enters port. Above: Navymen admire exhibit in maritime museum.

From Halifax

WITH "Hello Halifax" spelled out on the flight deck by her crew, USS *Valley Forge* (CVS 45) led the way into port for good liberty with our northern neighbors in Nova Scotia. Behind the antisubmarine warfare support carrier sailed seven destroyers and two submarines that comprised the rest of the Task Group on a training operation.

Crew members of the 10 task group ships from the Atlantic Fleet settled down for an enjoyable six-day visit to this Canadian port. In addition to the pleasant times with the citizens of Halifax and Canadian sailors, the U.S. Navymen enjoyed sight-seeing in the historic town that included visits to Halifax's popular maritime museum and the scenic Public Gardens.





RANGOON VISIT — Left: McCain man, following hat-off custom, poses by a temple. Right: Navy band entertains.

To Calcutta

THE 4400-TON DESTROYER LEADER USS *John S. McCain* (DL 3) has completed a tour of duty with the U. S. Seventh Fleet that included what is probably the most unusual goodwill cruise of her career.

On her itinerary during the cruise were such exotic ports of call as Calcutta, India; Rangoon, Burma; and the state of Singapore. Of the almost 300 officers and enlisted men on board the ship, not one had visited Calcutta or Rangoon previously. In fact, before *McCain*'s arrival it had been five years since an American warship had called at Calcutta and four years since one had visited Rangoon.

The cruise began when *McCain* was selected to carry \$5000 worth of medicine to India for use in flood-stricken areas of that country. In Calcutta the ship turned this American donation over to Indian health authorities for immediate distribution. Then, moved by the plight of the flood victims, *McCain* added 3500 pounds of her own food supplies to the donation, and organized a charity ball which raised another \$1000 for flood relief.

When they weren't busy with these projects, the men of *McCain* took advantage of every chance they got to tour this great metropolis of India—with its sacred cows, famous temples, turbaned Sikhs and crowded marketplaces.

After five days in Calcutta the ship headed across the Bay of Bengal toward Rangoon, the capital of Burma, where she stayed four days. There, the crew welcomed visitors on board, held parties for local children and took time out to visit such famous places as the Shwe Dagon, or Golden Pagoda, one of the most sacred Buddhist shrines in Burma.

McCain's next stop was Singapore, at the tip of the Malay Peninsula, where the crew had three days to see one of the world's most colorful ports.

From there, *McCain* returned to her regular duties.



ELEPHANT RIDE in Calcutta (above), visit to Rangoon's Golden Pagoda (below) were among features of trip.





BY THE ZEE — Rebuilt since WW II with the help of Allies, the Dutch Navy is now one of the world's most modern.

VISIT WITH THE DUTCH

THE DUTCH PEOPLE have fought on the sea and have fought the sea itself to survive. The very ground on which they live they captured from the sea.

Even today they are building more dikes to hold back the waters of the North Sea to increase the size of their country. The Netherlands people contend that "God made the world, but the Dutch made the Netherlands."

Being a seafaring nation, the Dutch have always had a good navy and a large and busy merchant marine. Today is no exception. The Dutch navy is newly equipped and her merchant marine is one of the largest afloat.

At the end of World War II the Dutch navy was almost extinct. During the first six years of fighting the Netherlands lost 15 per cent of her naval personnel and the bulk of her ships.

The sea service has been rebuilt, however, and with the help of her allies, she now has one of the most modern navies in the world. Most of her 150,000 tons of combatant

ships were new or modernized since 1953. Her minesweeping force is the newest and largest in Europe.

The principal job of the Netherlands navy (Koninklijke Marine) is to protect the coastal waters of Holland and her possessions and to protect the merchant marine on the high seas. It is well qualified and ready to do both. Besides its present strength, the navy has plans which include nuclear propulsion for submarines and rockets for their ships.

THE DUTCH NAVY currently has two squadrons, one operational (Squadron 5) and one training (Squadron 1). The operational squadron is something like our task force. It is built around the Netherlands navy's only aircraft carrier *HNMS Karel Doorman* (R 81). This ship displaces 14,000 tons standard, is 693 feet long (over-all) and has a beam of 121 feet (over-all). *Karel Doorman*, built for the British Navy in 1945, was purchased by the Netherlands in 1948.

Between 1955 and 1958 *Karel Doorman* had her face lifted. A

heavier modified angled flight deck and steam catapult was added, and a mirror sight landing system and new anti-aircraft battery of 10, 40mm guns were installed. A bill for 25 million guilders (over \$6,000,000) was presented the Dutch navy for this job.

The big guns of the training squadron are aboard the 9735-ton cruiser, *HNMS De Ruyter* (C 801). (Another cruiser of the same size is in the reserve fleet.) *De Ruyter*, which always operates with the training squadron, was completed at a Holland shipyard in 1953.

Escorts for these large ships include 12 destroyers. The oldest of these ships (eight are 2476 tons each, and four are 2164 tons) were completed in 1953. The newest in 1958. Each of these tincans carries a crew of about 250 men. They can glide through the water at speeds which range from 32 to 36 knots. Usually four destroyers operate with the operational squadrons, while two work with the training group.

Seventeen frigates which range in size from 640 tons to 1463 tons



DUTCH SAILOR brings back souvenirs.

NAVY

also provide punch and speed to the mobile Dutch fleet.

The training squadron (Squadron 1) is vital to the efficiency of the Dutch navy. It is in this group that Dutch sailors learn seamanship and get their initial on-the-job training. Dutch sailors receive their very first shipboard experiences in this squadron and in later years return for refresher training and as instructors.

WHEN A MAN ENLISTS in the Netherlands navy at a minimum age of 16 years, he undergoes boot-camp style training for about four months. He learns, much like U.S. sailors, about the navy and a little about life aboard ship.

After the four-month indoctrination the men go aboard one of the training ships. They are not sent to a service school during their first enlistment. Only after they have re-enlisted for the first time are they allowed to attend school.

This system is used because in the past many first cruise men have received extensive navy training at a service school and have then re-



DUTCH CRUISERMEN go about their shipboard routine while on training cruise.

turned to civilian life as a well trained technician. They had trouble keeping well trained men in service. Under this new program, however, they retain most of the men they train in school.

The training squadron and the operational squadron can almost be called a professional group of Navy-men and an amateur group of Navy-men. The operational squadron are all graduates of the training squadron and are well trained before they board a ship in the varsity group. Sometimes the two squadrons compete during exercises, and on some occasions the amateur group wins.

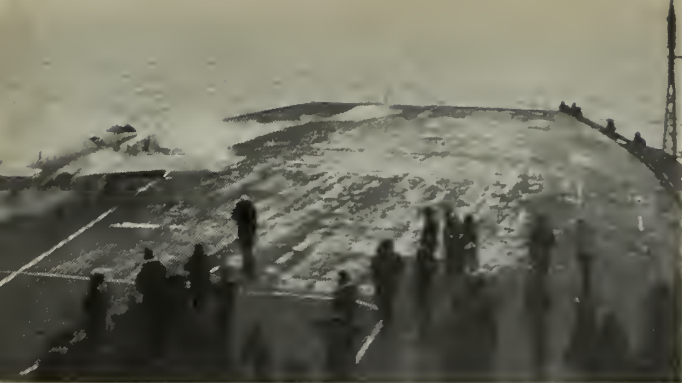
The ships themselves also change from one squadron to the other with the exception of *Karel Doorman* and *De Ruyter*. When a destroyer, for example, finishes a tour of duty with the operational squadron, usually after about nine months, she returns to her home port where a new crew

comes aboard. This new group will take the ship and join the training squadron for either new or refresher training. The men who come off the ships may go to shore duty, to another ship, or to a service school. A few might remain aboard to train the new crew.

BESIDES THESE surface ships, the Dutch also have four operational submarines which work with both squadrons. Two are ex-USS *Balao* type. They were loaned to Holland in 1953 under a five-year loan which has since been extended to 10 years.

Two ex-British "T" class submarines are also part of the submarine fleet. They displace 1090 tons and carry 64 men.

Probably the most unconventional ship in the Dutch navy is a submarine which is currently undergoing sea trials. (Another, under construction, should be ready in 1961.)



IN THE AIR — Netherlands' operational squadron is built around aircraft carrier *HMS Karel Doorman* (R 81).

These submarines differ from the subs now in general use by the world navies in that the pressure-proof hull is made of three parallel cylindrical bodies rather than only one. The Dutch claim that these submarines will be able to withstand greater pressure and consequently dive deeper than any known submarine. A new type torpedo and launching tube is also being developed which will allow torpedoes to be fired from greater depths.

The complement of these submarines is 63 officers and enlisted men. Standard displacement is 1070 tons. Two additional submarines of this type have been temporarily cancelled pending a possible switch to nuclear power.

Besides these larger surface ships and submarines, the Netherlands navy has the largest and newest minesweeping force in Europe. Many of these ships were built in the United States and later trans-

ferred to the Netherlands navy under the Mutual Defense Assistance Program (now known as MAP—Military Assistance Program).

Among these ships are six wooden-hull U.S. AM-type minesweepers which displace 665 tons, are 165 feet long and 35 feet wide. They carry a crew of about 85 men. They cruise at about 12 knots.

FOR COASTAL MINESWEEPING work, the Dutch navy has 32 *Dokkum* class wooden-hull ships built in the Netherlands. Eighteen of these ships were provided under offshore procurement by the United States. The remaining 14 were built in the Netherlands and paid for by that country.

Another 14 wooden-hull minesweepers of the *Beemster* class were built in the United States and then transferred to the Netherlands during 1953-54. These 384-foot ships carry 40 men, are 144 feet long and

27 feet wide. They carry two 20mm anti-aircraft guns.

Sixteen additional inshore minesweepers are currently under construction. Eight of these will be paid for by the United States under the offshore procurement program, with MAP funds, and the other eight by the Netherlands government.

This comparatively small navy has a big job to do. Its commitments are both national and international.

On the national level, it must protect the coastal waters of the Netherlands, the naval defense of islands in the Caribbean and Surinam, and the naval defense of the western part of New Guinea. To do this job, the ships of the navy operate mostly in the North Sea and entrance to the Atlantic Ocean; around Curacao; near New Guinea; and sometimes in the Caribbean area.

ON THE INTERNATIONAL level, Holland is a member of the North Atlantic Treaty Organization (NATO), and as such have forces earmarked for the North Atlantic Command (SACLANT), the Channel Command (CINCHAN), and the European Command (SACEUR).

Whenever possible the Dutch navy operates and trains with other NATO navies. Although they sometimes operate with ships of the U.S. Navy, much of their combined exercises are with the nearby NATO nations of Belgium, West Germany, France and England.

Routine aboard Dutch ships at sea is somewhat different from that aboard U.S. ships.

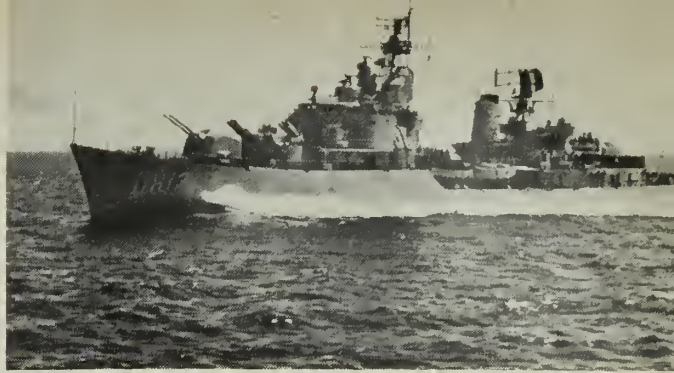
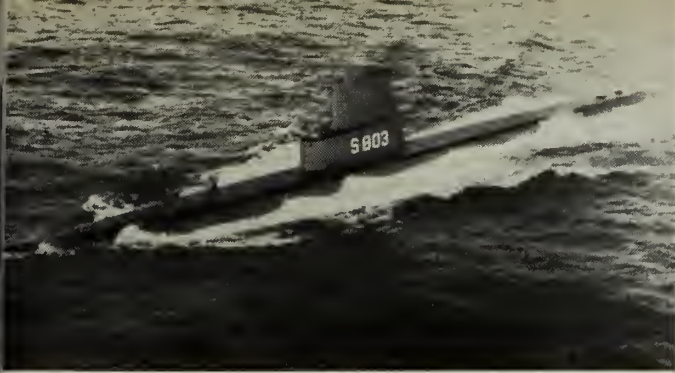
Reveille is at 0700, with breakfast immediately thereafter. For breakfast, bread, butter, jam, cheese and coffee is normally served. Sometimes an egg or some meat is added.

The morning's work begins at 0800 and lasts until 1200, with a 15-minute coffee break at 1000.

A lunch and rest period lasts from 1200 to 1400, at which latter time the men have a 15-minute tea break

LIBERTY IN U.S.A.—Netherlands navymen from the aircraft carrier *HMS Karel Doorman* pose for photo at Hayden Planetarium while sightseeing in New York.





ONDERZEEBOOT (submarine) *HMS Zeeleeuw* and antisubmarine destroyer *HMS Groningen* are typical Dutch navy.

before going back to work. Lunch is the main meal of the day. The men are served potatoes, vegetables, meat and salad (no bread and butter), much the same as men aboard a U.S. Navy ship.

All ship's work is stopped at 1600. For supper, a Dutch navyman will eat bread and butter or sandwiches, some hot food (many times either something left from lunch or soup), and coffee. Later, men on watch are served hot coffee and sandwiches.

The routine after dinner is casual. Some men go to the movies or to the ship's store. The routine here can be a little different from that of our ships.

A Dutch sailor, rather than buy an ice-cream soda and eat it in the fountain, might buy a can of beer and take it with him to the movies. Each man aboard a Dutch ship may buy two cans of beer each day. They may not, however, accumulate their ration. Petty officers and officers can buy from a wine mess aboard the ship.

When Dutch ships were moored at the Naval Operating Base, Norfolk, Va., for the Naval Review in 1957, Dutch and American sailors exchanged visits. They seemed to prove the old adage true—that the grass is always greener. . . . Dutch sailors would visit the American ships and buy ice cream, while the American sailors who visited the Dutch ships, would often order beer.

ALMOST ALL OFFICERS in the Dutch Navy are graduates of the Netherlands Naval Academy (Koninklijk Instituut voor de Marine) at Den Helder. The only officers who are not graduates are former chief petty officers who have received a direct commission.

Established in 1854, the academy has occupied the same buildings in Den Helder since 1870. About 75 ensigns (Luitenants ter Zee 3e Klasse) and 200 reserve officers graduate each year.

These officers, unlike the U.S. Navy's line officers, are all special duty officers. Each one studies one of five different courses. They may specialize in either Executive (Deck), Marine Corps, Engineering, Electrical, or Supply and Secretariat.

Navy pilots are all graduates of the executive class at the Academy. If for some reason a pilot is grounded in later years, he can still fill the billet of a regular naval officer.

Also at Den Helder is the Commander-in-Chief Netherlands Home Station, the Royal Naval Dockyard, the service schools, and the Mine Warfare School and shops. Den Helder is something of a Norfolk of the Dutch navy.

THE MAIN NAVAL AIR STATION for the air arm of the Dutch navy is at Valkenburg, near The Hague. When the aircraft carrier *Karel Doorman* is in port, her planes are

based there. Other navy training squadrons also operate from here.

Besides Valkenburg, the Dutch navy maintains one training squadron at Curacao in the Caribbean, and several other squadrons on the island of Biak, near New Guinea.

Planes currently in use by the Dutch navy include the TBF *Avenger*, *Sea Hawk* (British), S2F *Tracker*, P2V *Neptune*, SNB *Beechcraft*, PBM *Mariner*, and several helicopters. They plan to acquire several newer type planes soon.

The Dutch navy is "somewhat" older than the U.S. Navy. Its admiralty was established in 1487, five years before Columbus discovered America. In the second half of the 17th Century, the Netherlands had the largest merchant fleet and the most powerful navy in the world.

Today the Dutch do not have one of the largest navies in the world. They don't need one. They do have, however, a modern, fast, and efficient navy, and one that certainly stacks up as one of the most important in the world.

The free people of the world depend on the Netherlands navy as part of the combined power of NATO to keep the world free and the sea lanes open. It is the type of cooperation and determination shown by this and other small countries that will keep power-hungry countries confined to their quarters.

—Erwin A. Sharp, JO1, USN

ON PARADE — Dutch sailors parade at Naval Academy and (rt.) in Norfolk, Va., during International Fleet Review.





IT TAKES A LOT of Naval Intelligence to plan an operation such as an amphibious landing on enemy-held beaches.

Intelligence in Reserve

"We are going to destroy the enemy submarine installations by a coordinated air and submarine missile attack and an amphibious operation in order to prevent the enemy from interfering with Allied commercial and naval operations in this area. We need to know the exact location and size of the installations, their characteristics and defense capabilities, hydrographic and weather conditions, and information on landing beaches, roads and other topographic features.

"Are there any opposing navy or air forces in the area? Are there any enemy missile bases capable of interfering with our operations? What enemy troops will we encounter ashore. Will the natives be friendly?"

"Gentlemen, this information must be accurate, complete and reliable. We must have it within 72 hours."

THE OFFICER speaking might be the commander of a task force, or he might be the chief of staff of a wartime Fleet intelligence center.

Actually, he is an instructor of a special Naval Intelligence course at Little Creek, Va., or at the Amphibious Training Command, Coronado, Calif. Seated before him, in a specially equipped room, is a group of Naval Reserve intelligence officers who are studying the problems of gathering the essential elements of information which must accompany

every naval operation. In time of war, such an assignment may take days or weeks of exhaustive research in order to prepare the intelligence annex to the admiral's operation order, or it may have to be done on an emergency basis from whatever information is readily available.

Reserve intelligence officers are a highly select group of specialists who must be qualified in one or more fields of special interest to the Office of Naval Intelligence. Among these are geography, geology, cartography, hydrography, archaeology, architecture, economics, politics, international relations, foreign languages, journalism, business administration, law, transportation, industrial engineering, physics, chemistry, biological sciences, and various other engineering, scientific and technical fields.

SUCCESSFUL TEACHING OR RESEARCH experience in these fields, extensive foreign residence or travel, and previous investigative experience may also qualify applicants for the Naval Reserve Intelligence Program. A bachelor's degree is a minimum requirement, but individuals with higher degrees and significant academic honors are especially desired. Officers with Fleet experience—under age 35 and in the grade of LT and below—who meet these requirements are also among the

most successful applicants. Exceptions to these basic requirements are occasionally permitted.

No matter what their areas of specialization, intelligence officers have several things in common: an insatiable intellectual curiosity, the ability to find and assemble needed information, and superior judgment in evaluating pertinent facts, combined with an unquestionable loyalty to the United States and to the Navy.

To make sure they meet these requirements, applicants must meet with a screening board of from three to five senior intelligence officers and undergo an intensive interview concerning their academic preparation, civilian and military experience, comprehension of domestic and international affairs, and their reasons for requesting affiliation with the Naval Reserve Intelligence Program.

One of the most important factors considered by the screening board is the personality of the applicant. Intelligence officers must be able to work with a wide variety of personalities—admirals, diplomats, government officials, businessmen, merchant seamen, ship owners, "average citizens," people of other countries—even, on occasion, criminals. Thus applicants must have pleasing, flexible and well adjusted personalities in order to be able to elicit and evaluate information provided by people from all walks of life.

ALL PROSPECTIVE INTELLIGENCE officers are given a thorough background investigation which covers their school and college careers, employment records, organizations to which they belong, and other contacts in the United States and abroad. As part of this investigation, a check of FBI fingerprint files and of other government intelligence agencies is required.

Every naval district in the United States has a Naval Reserve Intelligence Division. Each division is composed of officers, except for six to eight yeomen and personnel men who are assigned for administrative purposes. The Intelligence Divisions are organized on a district-wide basis for supervision and administration. Each division is further subdivided into units. At present, there are more than 100 units located in the principal cities of the United States and in Puerto Rico and the Canal Zone.

These units currently have a total enrollment of approximately 1150 men and women officers in pay status and 400 in nonpay status. Officers in pay status are members of the Selected Reserve, with mobilization billets already assigned and pre-cut orders to active duty in the event of a national emergency. Most non-pay officers are members of the Ready Reserve and would be available for mobilization.

Naval Intelligence officers must learn the fundamentals of each outfit of the Navy with which they come in contact. They must understand world affairs, foreign policy, strategy, tactics, logistics and counter-intelligence. They must be administrators, investigators and research specialists. They must also keep up with new developments and technical progress in scientific fields applicable to naval warfare.

THE TRAINING PROGRAM for Reserve intelligence officers is geared to meet this need. Division training is under the direction of the Reserve training section in each naval district. A Reserve Intelligence Program Officer on full-time active duty is assigned to this section; he is responsible, in cooperation with the District Intelligence Officer, for the procurement and training programs of the Intelligence Reserve.

Reserve intelligence units meet in District or Field Intelligence Offices, Naval Reserve Training Centers, Naval Air Stations and other con-

veniently located military or government quarters. Training consists of special classroom courses, from two months to a year in length, conducted during weekly drills, and intensive two-week courses taken during annual active duty for training. Both types of training are designed to prepare the officers for mobilization.

Basic classroom courses offer a general introduction to intelligence—its organization and functions in the Navy—and in the security of classified matter. There follows more advanced instruction in operational intelligence, strategic intelligence, the Communist conspiracy, sabotage, espionage and counter-intelligence, and investigations.

When the prescribed pattern of courses has been completed, specialized training is provided in specific area studies such as the history and development of the Middle East, the Asiatic countries and eastern Europe, foreign language courses, world affairs, and unconventional warfare. Some units, in addition, have organized courses in such fields as industrial security and harbor operations.

IN CONDUCTING the courses, the more experienced intelligence officers take the lead, but all hands are expected to share in preparing and presenting training lectures. Training manuals, recordings and films provided by ONI offer the basic materials. These are supplemented by research into new fields and by

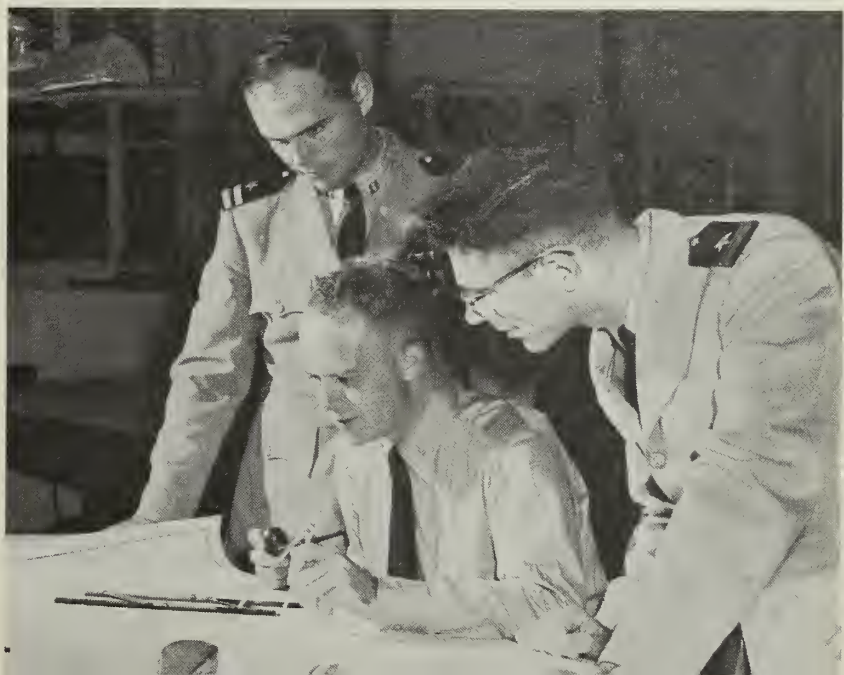
PROBLEM TIME—Naval Reserve officers go over a chart while working on an intelligence problem during special training course for Reserves.



ON THE JOB — Reserve ONI men get shipboard indoctrination, too.

the practical experience of veterans of World War II and the Korean conflict who have had active duty in intelligence billets at home, at sea and abroad.

A special feature in most units is a regular program of guest speakers on topics of current military, political and economic interest. Senior officers of all the military services take part in these events. The list of guest speakers also includes officials from such government agencies as the Federal Bureau of Investigation, the Central





PROSPECTIVE USNR "super sleuth" is screened by ONI board. Only a select group of specially skilled persons are picked for these important positions.

Intelligence Agency, the Immigration and Customs services, the Department of State and others. College professors and researchers in specialized fields in academic circles and private industry also participate.

To supplement the various training programs, the Intelligence Reserve also takes part in field trips and practical exercises. Special tours of harbor areas, visits to ships of the Fleet and of the Coast Guard, and to Navy installations ashore, serve to illustrate many of the topics covered in drills. Practical experience is also provided by the District and Field Intelligence Offices by actual participation in background investigations, security checks, foreign intelligence and special projects.

INTELLIGENCE OFFICERS in pay status are required to take 14 days' active duty for training each year. A series of three special courses in operational intelligence has been organized at Little Creek, Va., and at Coronado, Calif. A comprehensive

Naval Intelligence refresher course is also available to each officer once every four years at the Naval Intelligence School, Washington, D.C., and at NAS Alameda, Calif.

The operational intelligence courses provide specialized training in the preparation of intelligence reports used in amphibious landings and in operations at sea. The amphibious landings study includes such subjects as hydrography, beach gradients and composition, mapping, roads and facilities ashore, photo interpretation and target analysis. The sea operations training includes the preparation of intelligence on the area of operations, enemy characteristics and capabilities, possible courses of action, tides, winds and currents, and the collection of information by submarine, UDT, surface and aerial reconnaissance teams.

In both types of training, special emphasis is placed on the function of the intelligence officer as a member of the staff of the commander

of a task force or a task group in determining his mission and making an estimate of the situation.

Other ACDUTRA courses are: anti-submarine warfare, combat information center, bacteriological and chemical warfare, atomic defense and amphibious operations. Intelligence officers also take part in sea-going cruises, many of them to foreign ports. On-the-job training is provided at District and Field Intelligence Offices and in the Office of Naval Intelligence. In ONI, officers may be given special training in the various foreign, investigative, and technical sections, and in the training and administration of the Reserve program.

DURING WORLD WAR II, approximately 90 per cent of the Naval Intelligence officers were Reservists on active duty. During the Korean conflict, some 125 Reserve intelligence officers were ordered to active duty and, throughout the cold war period, a number of intelligence billets have been filled by Reservists. Mobilization plans, kept current by ONI, provide for full use of Reserve intelligence officers in the event of national emergency.

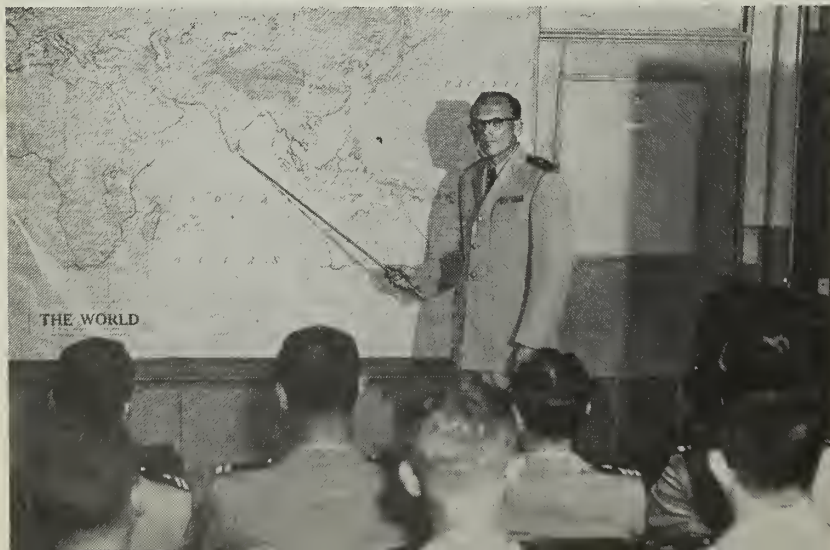
Although the exact nature of the mobilization plans cannot be revealed, the probable assignments of the Reserve intelligence officers indicate four principal areas of operations—in the Office of Naval Intelligence, in District and Field Intelligence Offices, in operational intelligence billets, and certain foreign shore duty assignments. The plans are carefully designed to provide a world-wide network of ONI outposts ashore and afloat reporting all military, naval and political activities of possible interest to the Navy.

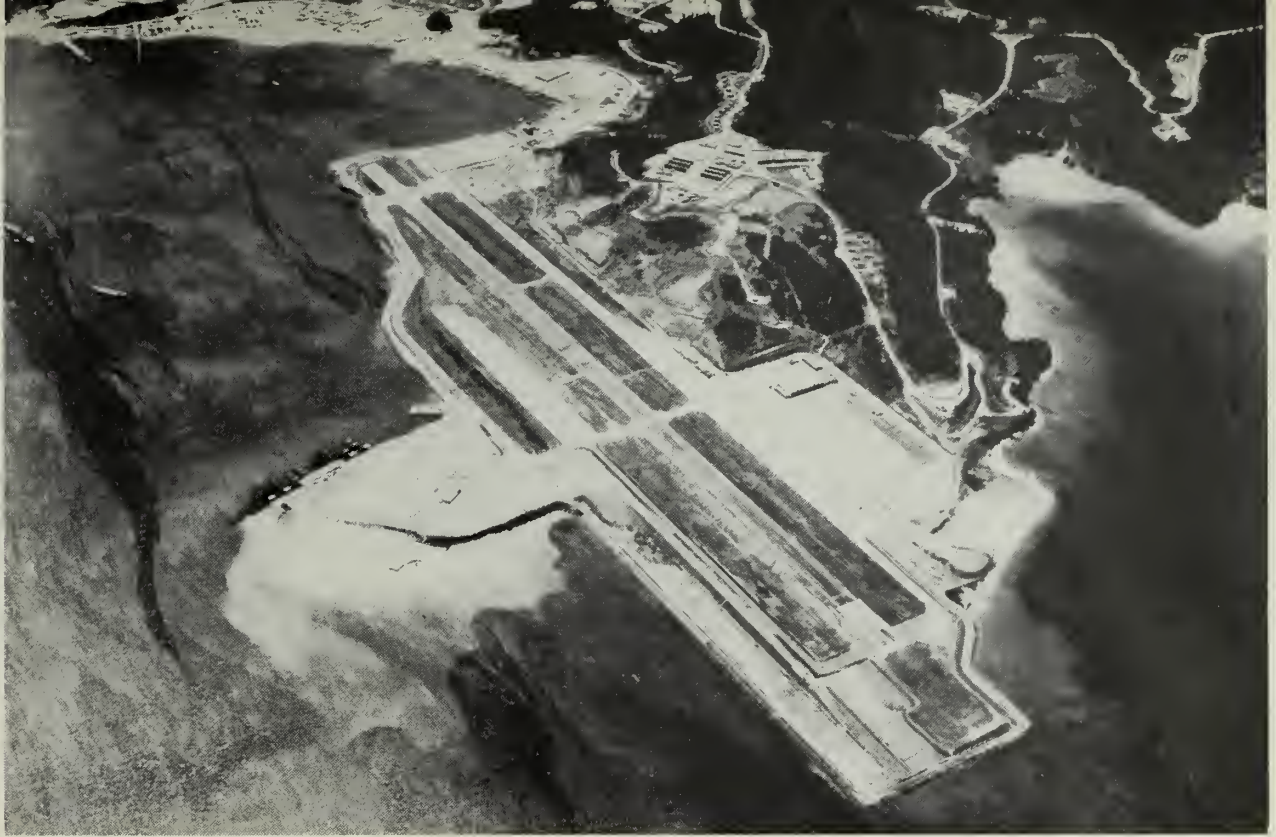
In making assignments, the personnel section of ONI works closely with the Bureau of Naval Personnel to assure the most effective utilization of intelligence officers in their fields of specialization. For this purpose, ONI maintains comprehensive files on the background, experience and qualifications of each Reserve intelligence officer. This information is readily available both in ONI and the Bureau of Naval Personnel on special machine-punched cards.

In the event of mobilization, Reserve intelligence officers will be trained and ready to take on their jobs as "eyes and ears of the Fleet."

—CDR Donald H. Scott, USNR.

INTELLIGENCE LEARNING—During WW II approximately 90 per cent of Naval Intelligence officers were Reservists. Here, USNR officers are briefed on chart.





Cubi Point

THE NAVAL AIR STATION at Cubi Point in the Philippines, one of the biggest and most difficult projects ever undertaken by the Seabees, now serves its main mission as a naval air arm of the Seventh Fleet. Since its commissioning in 1956 the station has received every carrier of the Seventh Fleet as well as one deployed from the Med during the Formosan crisis.

Its location and physical characteristics give Cubi a key position in the defense system of southeastern Asia.

In addition to its primary mission, NAS Cubi has already on many occasions served as an emergency base of operations for the Seventh Fleet and as home base during Fleet picket operations.

Top: Cubi Point looks like this from the air. *Right:* Crash crew stands by as jet takes off. *Lower Right:* Ground crew fuels jet with new high-speed system. *Lower Left:* Towerman contacts pilot.



Happy Birthday to You

THROUGHOUT THE NAVY today cakes are baked for special events—ship anniversaries, carrier landings, homecomings or for almost any other celebration aboard a ship or station.

Perhaps the one that means the most to the individual Navyman is the birthday cake. In recent years the practice has grown.

One of the best examples of this birthday program was described in the January 1959 issue of *ALL HANDS* in an article, "Is There a Formula for a Smart Ship?" Aboard PHIBLANT ship *uss Rankin* (AKA 103), as in many other ships, a cake was baked for every man aboard on his birthday. It was presented to him in the captain's cabin, where each man was given an opportunity to jump the chain of command, and discuss anything he had on his mind.

A photographer was usually present for the occasion, and an eight-by-ten print was sent to the parents of the Navyman who celebrated his birthday aboard ship. Accompanying the photograph was a personal letter, written by the captain, to the folks at home.

This is just one sample of the shipboard celebration. When *uss Nautilus*, SS(N) 571, returned from her first trip under the North Pole, chief commissaryman M. A. Fergione, and two CS3s, E. F. Gretowski, and W. E. Linsinbigler, baked a special cake for the whole crew.

Besides the regular icing and decoration around the side, on the top was a large ice floe "icing" with

a sign marking the "North Pole." The inscription read "*uss Nautilus*, SS(N) 571, — The First Time in History."

The same three commissarymen, assigned aboard the submarine tender *uss Fulton* (AS 11), have baked and decorated special cakes for other submarines of the squadron returning from noteworthy missions.

When *uss Skate*, SS(N) 578, returned from her trip under the North Pole a cake was presented to the crew. And after *uss Seawolf*, SS(N) 575, spent her record 60 days submerged, she got her cake too.

A submarine has a relatively small number of men in her crew. But what about a celebration on an aircraft carrier, with a complement of 3000-plus men? Each one wants a slice of that special cake. And some of them are going to want seconds.

We don't know—yet—for what occasion the largest Navy cake was baked or who assembled it. But we do know about two cakes that have weighed 3000 pounds each; another that weighed 1382 pounds; two of 1000 pounds each; and a "little" one that weighed 700 pounds.

The 3000-pounders were a considerable mouthful. One of them was baked by Milton Harp, then CS1, aboard *uss Leyte* (CVS 32). He baked the cake in connection with the ship's 10th anniversary, some time before the flattop was retired to the Reserve Fleet. Commissaryman Harp, and 250 of the ship's crew members, appeared on a nation-

wide television show, along with the cake.

The only other 3000-pound cake baked by Navy bakers (that we know of) was prepared back in 1954 aboard the aircraft carrier *uss Yorktown* (CVA Now CVS 10), to celebrate the second anniversary of her recommissioning. They had "rehearsed" for the occasion with a 1382-pound cake the previous year, for her first recommissioning anniversary.

If you want to know what goes into a cake weighing a ton and a half, you'll have to check with the cooks and bakers, but here's one for a little 700-pounder. It was baked by C. E. Dornsyfe, CS1, W. Morris, CS2, and D. R. Tippie, CS3, for the opening of a new PHIBPAC mess hall.

Clip this recipe—if you like cake—and take it home to the little woman: 200 pounds sugar, 40 pounds shortening, 12 ounces vanilla, 15 pounds butter, 200 pounds flour, 63 quarts milk, 6 pounds baking powder, and 3 pounds salt.

She should come up with a cake about one-and-a-half feet deep, eight feet long and four feet wide. It'll be just the thing for that party you're planning.

uss Philippine Sea (CVS 47) has come up with a few 1000-pounders. One that is recorded on film commemorated her 66,000th landing, and another the 70,000th landing on board, a few months later. Since then a lot more landings, and many cakes, have been chalked up by the crew.

To prepare the cakes, bakers mixed 22 pounds of flour with 282 pounds of granulated sugar and 300 pounds of powdered sugar, added 100 pounds of shortening, poured in 31 pounds of powdered milk, stirred in 132 dozen eggs, sprinkled in four pounds of salt, and completed the mixture by adding one pound of cake coloring. (The crew consumed this particular cake in less than two hours.)

King-sized cakes are not a new fad. Possibly the largest one ever baked was made in June 1730 for the army of Frederick William I, King of Prussia. It was 18 yards long, eight yards wide, and more than 18 inches thick. A cart drawn by eight horses carried it. Among the ingre-

TASTES GOOD TOO—One of the biggest Navy cakes weighed 3000 pounds. It is shown here just about polished off by crew of *USS Yorktown* (CVS 10).





SPECIAL CAKE for crew member's birthday is popular treat aboard ship. *Rt.:* Navy cakes come in a variety of forms for many celebrations. Here are a few.

dients were 36 bushels of flour, 200 gallons of milk, one ton of butter, one ton of yeast and 5000 eggs.

The smaller cakes may not be so newsworthy but they taste just as good, if not better. **ALL HANDS'** files are filled with any number of examples of smaller cake celebrations.

One of the most recent was in *uss Antietam* (CVS 36). The ship's bakers laid the keel of the vanilla cake ship, *Antietam Junior* on one day, and by 1600 the following day a 350-pound cake-carrier was complete.

Two days later *Antietam Junior* left the mother ship on a diplomatic mission. It was a rough trip aboard a one-and-one-half-ton truck down St. Charles Ave., New Orleans, La. And just before she anchored outside City Hall for her rendezvous with the Mayor, she received damage to her superstructure. Thanks to one of the ship's pastry technicians, she was repaired before the encounter with the head of the city.

Shortly after this she proceeded to the New Orleans Crippled Children's Home for replenishment (children's, not the ship's).

Who has the honor of cutting the ceremonial cake? On this matter of etiquette there seems to be no set rules. It depends on circumstances.

Naturally if it's your birthday, you cut the cake. Cakes commemorating a particular number of landings are sliced by the person who made the landing. Most often, however, a senior officer—the most senior

in the area—seems to be the most popular.

And what about the instrument with which to demolish the baker's masterpiece? That's easy. A sword is the only appropriate tool.

The decoration of a particular cake often overshadows its size. A flat single layer cake is probably the easiest shape to decorate and this is the type most commonly seen at Navy celebrations.

To add a touch of luxury and still keep the job comparatively simple, just add more layers, making them smaller each time. Aboard different ships this idea has been carried all the way from a two-layer cake to a complete pyramid.

Another shape that is popular, but requiring more artistry, is a cake shaped like the ship itself. We've seen a whole fleet of cake flattops, cruisers, destroyers, and submarines.

You may have the idea that these elaborate baker's concoctions have been made in giant molds, but few ship's ovens could hold a 3000-pound cake. Actually, they're baked in smaller sizes and then assembled by the experienced Navy baker to form the final size and shape.

Baking a cake—round or square, large or small, simple or elaborate—for almost any special occasion, is a popular pastime for many a Navy commissaryman. And, unlike some works of art, the end product meets an enthusiastic reception with the creator's severest critics.

—Erwin Sharp, JO1, USN.



Ship's Anniversary



Under-the-Arctic Voyage



Ship's Mascot's Birthday
Below: Destroyer Refueling Record



Brief news items about other branches of the armed services.

THE SECRETARIES OF THE ARMY AND NAVY have been designated by the Secretary of Defense to serve as single managers for the procurement and distribution of all general and industrial supplies and equipment for all branches of the armed forces.

As a result of this assignment, which went into effect 1 January, the Army will provide all military general supplies which include such items as housekeeping supplies, hand tools and the like. The Navy will provide all services with military industrial supplies which include hardware and related items.

The single managers will be charged with complete responsibility for wholesale supply of the armed forces in their respective commodity areas. This includes responsibility for deciding what will be bought, and cataloging, standardization, distribution, and disposal of excess items in the system.

This single manager concept is not new. Various phases of it have been in operation since 1956. During the three years the system has been in operation, substantial savings have resulted from streamlined distribution systems and reductions in inventory, storage space, personnel and overhead.

Previous single manager assignments have been established for subsistence (Army), clothing and textiles (Army), medical supplies (Navy), petroleum (Navy), air transport services (Air Force), sea transportation service (Navy) and traffic management (Army).

Additional assignments for management by the Army, Navy or Air Force are being considered.

★ ★ ★

THE ARMY IS TESTING LOW-COST PLASTIC FOAM for lightweight, weatherproof shelters that may eventually replace military tents.

Sprayed over an inflated canvas dome, the "self-rising" plastic foam mixture hardens in less than an hour and produces a shelter much like an igloo.

Ready for use after the canvas dome is deflated and



ARMY IGLOO—New type shelter developed by Army is made from self-rising plastic foam sprayed from a can.



CUBE HUNTERS—Coast Guardsmen man small boat to check iceberg that has drifted south into shipping lanes.

withdrawn, the shelter measures six feet tall by 12 feet in diameter. It weighs less than 200 pounds. Its superior insulating qualities make it attractive for possible living quarters or for storage.

Foam for the structure is mixed on the spot, and when sprayed on the canvas hemisphere, it expands outward much like a cake rising in an oven. It can easily be cut with a bayonet, making it possible to cut out doors or windows of any desired size wherever needed.

This new plastic foam may ultimately enable one member of a squad of ten men to carry in two small containers the tents of the entire squad.

When combined, the two chemical components which form the foam-in-place mixture expand to about ten times their original volume. Color additives can be blended with the mixture for camouflage purposes.

★ ★ ★

A ROBOT THAT IS NOW OPERATIONAL permits Air Force pilots to give their supersonic planes a complete pre-flight "electronic physical checkup" in 60 seconds while in the cockpit preparing to take off.

This new testing system is called RADFAC (Radiating Facility for Aircraft Flight Line Testing). It eliminates time-consuming checks of electronic gear in the Air Force's new F-105 Mach 2 fighter-bomber.

RADFAC is housed in a 247-cubic-foot trailer that can be parked as far as two miles away from the plane that it is checking—and still function effectively. It uses self-contained power sources, weighs about 3500 pounds and can be transported by air.

When the pilot or crew chief activates a remote-control unit in the cockpit, the electronic RADFAC system immediately locates the aircraft to be tested, "locks onto it" and proceeds through a programmed series of pre-flight tests. It checks the jet's communication, identification and navigation systems and advises the pilot, verbally or by tone signals, that the systems are in good working order. If anything is amiss, the robot pinpoints the trouble.

The programming of the test checks eliminates possibility of human error or forgetfulness. If any portion of RADFAC itself should break down, this is immediately

made known and then the preflight check can be made manually.

All aircraft located within the two-mile operational radius can use the robot to check out their systems, either one at a time or simultaneously.

Although developed especially for the F-105 being built for the Tactical Air Command, the new check-out system can be adapted for use on other types of aircraft and electronic equipment with only minor modifications.

★ ★ ★

THE ARMY ENGINEERS have built a better mosquito trap.

Perfected by the Army Engineer Laboratories at Fort Belvoir, Va., the new aluminum trap has proved to be more rugged and corrosion-resistant than standard models. It is used to catch a representative sample of a mosquito population so that density and species can be determined, and the effectiveness of controls measured.

Now standard military equipment, the trap consists of an aluminum frame, a cover-protected light bulb, a 10-milli-horsepower electric fan, a screen cone and a collecting jar. Mosquitoes attracted by the light are blown down through the screen cone into the jar, where they are killed by sodium cyanide or paradichlorobenzene. The trap operates on a 110-volt line, and is controlled by an electric timer.

★ ★ ★

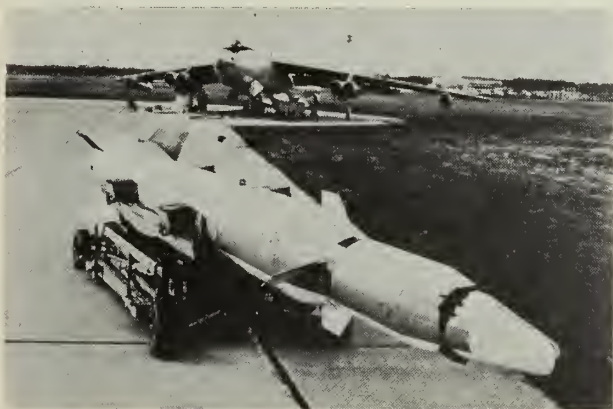
A NEW "SUPER SENTRY" RADAR ANTENNA to warn against enemy air attack is being tested by the Air Force for use with the nation's SAGE defense network.

This is one of the heavy-weight radars designed to feed advanced warning data into a central combat center. Its rotating boxcar-shaped antenna is 104 feet long and weighs 50 tons.

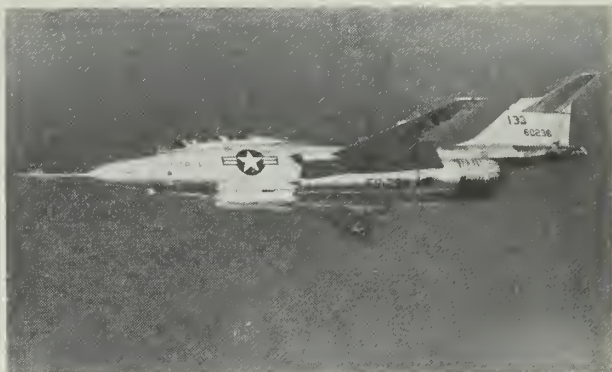
The antenna represents a considerable advance in this field. Its immense size is required to perform its distant warning task. It will detect invaders hundreds of miles away.

Newly developed power tubes—the amplatron and traveling wave—coupled with improved design, give the advanced surveillance set many combat advantages.

The antenna will be tower-mounted on a three-story transmitter-receiver structure housing the 262 separate



BIG BLAST—Two-stage Air Force experimental missile was launched from B-47 into vicinity of Explorer VI satellite.



BLACK MAGIC—Air Force Voodoo, F-101B interceptor, carries two MB-1 Genie air-to-air nuclear-armed missiles.

units that make up the entire system. Its over-all weight is 800 tons.

The SAGE defense system gathers and computes early warning data and decides the best retaliatory tactics against targets. SAGE results are fed to the North American Air Defense Command Headquarters at Colorado Springs, Colo.

★ ★ ★

A COLD REGIONS RESEARCH AND ENGINEERING LABORATORY will be built by the Army on the campus of Dartmouth College at Hanover, N. H.

This new lab will be used for research on physical properties of snow, ice and permafrost, and the developmental aspects of engineering methods and techniques applicable to arctic and polar construction.

It will combine two existing Army facilities located at Wilmette, Ill., and Waltham, Mass., that are currently engaged in similar research.

Dartmouth College—which has carried out scientific and academic programs in the problems of snow, ice and permafrost and has greatly expanded its work in geology and geography of arctic regions—donated 15 acres of its campus to the Army for the laboratory.

★ ★ ★

A 41-MAN ARMY POLAR RESEARCH EXPEDITION spent the summer identifying and marking safe snow routes on the Greenland icecap, studying ice, snow and weather conditions, and developing new techniques of polar navigation and transportation.

Called "Operation Lead Dog," the exploration party made an 1800-mile trek across the icecap to previously unexplored Nyeboes Land, in northern Greenland.

After leaving Camp Tuto, near Thule, Greenland, the expedition followed a previously marked trail over the icecap for 340 miles to the east, then swung north to Nyeboes Land. They navigated by dead reckoning to a point on the northern edge of the icecap, where base camp was set up 500 miles from the North Pole.

The party, all volunteers, were members of the U. S. Army Transportation Environmental Operations Group from Fort Eustis, Va. They were accompanied by scientists of the Corps of Engineers' Snow, Ice and Permafrost Research Establishment (SIPRE), the Signal Corps, Quartermaster Corps and the Transportation Research and Engineering Command.



STUDENTS LINE UP for a regimental inspection (left). At right, the administration building of the SC School.

The Navy Has a School in Athens

To prepare Supply Corps officers for the role they are to play, all newly commissioned Supply Corps ensigns go to one of the country's more unusual institutions of learning, the Navy Supply Corps School at Athens, Ga. Here, on a campus purchased from the University of Georgia, the student Supply Corps officer begins his basic training and receives his first duty assignment.

Normally, the sequence begins with a six-month basic qualification course, followed by an assignment to a destroyer where he is the junior department head for 18 to 20 months. This is followed with shore duty in the United States, then foreign duty.

Of the junior rank Supply Corps officers who enter the school, 95 per cent are graduates of the Naval Academy or civilian universities. The remaining five per cent are former enlisted men. For 26 weeks they study naval supply, disbursing and administration matters.

Since its establishment in 1921, the Navy Supply Corps School has

been shifted from Washington, D. C., to Philadelphia, Boston, Bayonne, N. J., and finally to its permanent home in Athens. Here some 750 officer students prepare themselves annually for duty with the Fleet. They have at their disposal a 40-acre campus that was formerly a part of the university, and 14 major academic and administration buildings. In addition, there are living quarters for 32 married officers and 337 single officers.

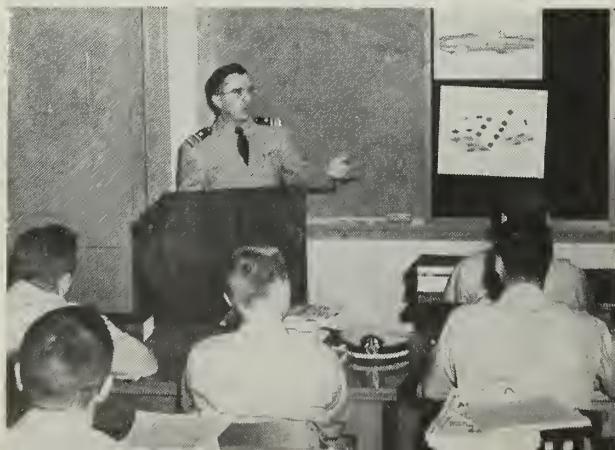
Since moving to Athens the school has graduated more than 4000 Supply Corps officers. In addition to the basic qualification course of 26 weeks, the school offers a 16-week qualification course in disbursing, naval administration, technical supply and supply afloat review for officers who have received part of their supply training in one of the 12 Supply Option NROTC universities; a nine-week Foreign Officers Supply Course for junior officers of friendly navies; a two-week supply management seminar on techniques of supply management in shore billets; a two-week commissary administration class

and a two-week general supply refresher course with emphasis on afloat billets. These two-week classes are conducted for Reserve officers on active duty for training.

Despite the heavy study load, the school has a physical fitness program featuring intramural sports throughout the year. Facilities are available on the base and in the local area for swimming, softball, tennis, volleyball, basketball and golf. The school also supports a wide variety of other extracurricular activities, including a dramatic group, philosophy club, toastmaster's club, glee club and student newspaper.

Instructing the student body and administering the station is a staff of 48 officers, supported by approximately 75 enlisted personnel and the same number of civilian employees. Staff and faculty include Supply Corps officers from virtually every important university and college in the country. All are experienced in supply, fiscal matters, storage and warehousing operations, subsistence and other phases of mobile support logistics. It's an excellent course.

INSTRUCTOR MAKES A POINT in classroom lecture (left). Library (right) is a good place to study or just relax.



LETTERS TO THE EDITOR

Advance Pay and Travel

SIR: There have been a few words passed between the disbursing officer and me about advance pay for officers when they are transferred.

Disbursing says that an officer who draws both advance pay and advance travel must have the commanding officer's endorsement on the orders.

I seem to remember a recent NavCompt Notice which said it was no longer necessary for officers to have their CO's approval to draw advance pay. I am not sure, however, about advance travel.

If officers do not need their commanding officer's approval to draw advance pay or advance travel, I don't see why an endorsement on the orders is necessary.—A. N. M., PN2, USN.

• There is a little confusion here, but you're both right.

The NavCompt Notice you mentioned was number 7220 of 7 Mar 1958. It eliminated the requirement for a commanding officer's approval of advance pay exceeding one month's pay to officers and warrant officers upon a permanent change of station. (The same notice authorized advance pay to be given officers on a PCS without their commanding officer's approval.)

If an officer wants both advance pay and advance travel, however, it must be authorized in the orders, endorsement to the orders, or by a pay record order, just as the disbursing officer said.—Ed.

Nautilus' Birthday

SIR: While serving aboard *uss Beale* (DDE 471) in 1955, I was certain that we operated with *uss Nautilus*, SS(N) 571. However, every time I tell about some of our experiences with the Navy's first atomic-powered sub I get shot down.

The "authorities" seem to say that *Nautilus* wasn't even launched in 1955. But I insist that we operated with the mighty 571 in 1955. Will you set them straight?—E. A. P., BT1, USNR.

• You are so right.

We can't verify the fact that *Beale* operated with *Nautilus* but the SS(N) 571 was operational at the time you claim you were aboard DDE 471, so we'll take your word for it.

As a matter of record, the keel of the world's first atomic sub was laid on 14 Jun 1952; she was launched on 21 Jan 1954 and commissioned while undergoing builder's trials on 30 Sep 1954. It was on 17 Jan 1955 that the historic message "Underway on Nuclear Power" was flashed from *uss Nautilus*.—Ed.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Permanent CPO in Fleet Reserve

SIR: I made GMC (acting) on 16 Jul 1959. I understand that I must satisfactorily hold that rating for three years before it becomes permanent. However, I will become eligible for transfer to the Fleet Reserve about June 1961.

Will my appointment to GMC become permanent upon transfer to the Fleet Reserve?—J. T. H., GMCA, USN.

• Yes—a man can be recommended for permanent appointment in one year following advancement to acting, if transfer to the Fleet Reserve is involved.

Par. 15 (b) of BuPers Inst. 1430.7C has this to say on the subject:

"Chief Petty Officers who have completed at least 12 months' satisfactory

Precedence of CPOs

SIR: Article 1817 of U. S. Navy Regulations states: "The senior line chief petty officer in each mess shall be mess president." Where can we obtain a list or table of line rates which shows military precedence?

Another thing, can the position of mess president be construed as anything but a military duty?—D. J. O., SHC, USN, and W. D. M., GMC, USN.

• The term "line chief petty officer" carries back to the days when line and staff petty officers were distinguished by right and left arm rates. When right arm rates were abolished, the concept of line petty officer became obsolete. Action has been initiated to modify Article 1817 in which the term is used.

The presidency of the chief petty officers mess is considered military duty. Precedence for military purposes is shown in "BuPers Manual," Article C-2120. A revision of this article, which clarifies precedence for military and non-military matters and includes an up-to-date list of enlisted ratings, is included in the current Manual reprint.—Ed.

service under the acting appointment may be recommended for permanent appointment at the time of their retirement or transfer to the Fleet Reserve and concurrent release to inactive duty.

"Recommendation regarding personnel approaching this status should be made in accordance with provisions of article C-7209 of the 'BuPers Manual.' In order to insure that the permanent appointment may be issued on release to inactive duty, this recommendation should reach the Chief of Naval Personnel three months before the anticipated date of release."

In other words, Chief, you'll get your permanent appointment, provided your request for same, and your CO's recommendation, reach the Bureau well in advance of your release from active duty.—Ed.

Rate on Retirement

SIR: Recently a Naval Reservist was released to inactive duty as a PO2 after he had completed 20 years' active service.

About three months later this same man was advanced to first class—his highest rating held. If he now requests retirement, will he retire as a PO1?—C.F.W., YN3, USN.

• Yes. If he is a petty officer first class at the time of retirement, that is the rating in which he will draw retirement pay.—Ed.

Shipboard Equipment

SIR: We've been having a discussion, and would like to know who owns the following equipment aboard ship: main engines, reduction gears, electric switchboards, and emergency diesels.

The majority say the Navy owns this equipment. A few of us are sure that the Navy leases it. Up to now I have always been told that the Navy leased almost all equipment except consumable items. We haven't been able to find anything on this subject in the *BuShips Manual*.—C. A. H., MM1, USN.

• In this case, at least, the majority rules. The Navy owns all the machinery items listed in your letter and all other equipment installed in a ship. The only exception to this is small equipment, generally portable, that has been furnished or loaned to the Navy for service evaluation.

The machinery items you mentioned are generally bought by the shipbuilders and their cost is included in the total contract price of the ship.—Ed.



DOUBLE THREAT—Navy's air-to-air and air-to-ground Zuni rocket travels faster than twice the speed of sound and can smash many types of targets.

More Light on the Subject

SIR: The Navy's ships are great, and they are versatile, but they are not quite up to one of the jobs described in the article, "Face-Lifting for a Flat-top," in your November 1959 issue.

Contrary to a statement in that story, *uss Oriskany* (CVA 34) is not capable of meeting the electric power needs of a city the size of San Diego, Calif.

Based on the 1958 figures for consumption of electric power, an average generating capacity of about 400,000 KW is required for San Diego. According to your article, *Oriskany's* ship's service generators have a capacity of 50,000 KW, which would mean she could supply only one-eighth of San Diego's requirements. However, a deci-

mal point must have been misplaced, for *Oriskany's* ship's service generators are rated at 1250 KW each, for a total of 5000—not 50,000—kilowatts. And, a considerable part of the ship's power output would have to be used to meet her own needs.

This letter is triggered not so much to correct the error in an otherwise excellent article as it is to straighten out a misconception which has been popular ever since the old *uss Lexington* (CV 16) supplied part of the electrical power for Tacoma, Wash., during a water shortage in 1929.

Lexington was an electric drive ship. (None of our large combatant ships are, today.) The characteristics of her main propulsion—not ship's service—

generators happened to make it possible to obtain the required frequency for shore use (which is often infeasible). Through large transformers and switchgear, set up ashore, *Lexington* provided 20,000 KW—a fraction of Tacoma's total requirements—to that city for about a month.

Since then, the Navy has been asked from time to time to supply large quantities of electric power. In some instances, the amounts requested were within the capabilities of naval ships, and the need justified such use. In most cases, however, either the output required was far beyond the capabilities of warships, or the situation did not justify this very expensive method of supplying electric power.

Most American cities use from .6 to one kilowatt of generating capacity per capita. None of our ships is able to meet all the electrical requirements of any sizable U. S. city.

Incidentally, some electric-drive DEs from World War II have been fitted so that they can readily supply about 4000 kilowatts for shore use to meet military or civilian requirements.—S. Neman, CDR, usn.

• *We were just getting all set to put up a brisk argument when we checked our Navy Department phone book to find out what office you were in, and discovered that you are Head of the Electrical Branch, Machinery Division, under the Assistant Chief of the Bureau of Ships for Technical Logistics.*

We hate to admit it, but you obviously know more about this subject than we do, so we must have been wrong.

Nolo contendere.—Ed.

Counting a Minority Enlistment

SIR: Is every man who finishes a minority enlistment eligible to wear a service stripe?

Some of the older petty officers contend that a man who completes a minority enlistment is eligible for a service stripe even if he has only served three years and one day.

U. S. Navy Uniform Regulations, 1951, Article 1202, paragraph 6(e), states: "Enlisted personnel shall wear one service stripe for each full four years of service (other than on the retired list) in the Navy, Marine Corps, Coast Guard, Army, Air Force, Naval Reserve, or any combination thereof."

I say the minority enlistment serves only for constructive service and does not count as four years toward earning a service stripe.—J. D. R., YN2, usn.

• *You're right all the way. A minority enlistment counts as four years for constructive service only. Four years' day-for-day service is required to earn a service stripe.*

Looks as though you can fill in the older petty officers on this one.—Ed.

TOP SALUTE—Crew of *USS Salisbury Sound* (AV 13) man the rails during rendering of full honors to Viet-Nam's president while visiting Saigon.



What's in the Wind?

SIR: Which way the wind blows?

Take a look at the flags in this photograph, and you'll get some idea of the trickiness of the wind currents in Suda Bay, Crete.

The picture was taken from the boat deck of *uss Sierra* (AD 18), by C. M. Falkenstein, SN, USN. The ships alongside are *uss Lowry* (DD 770) and *Hawkins* (DD 873).—G. M. Freedman, LTJG, USN.

• *This is one for the record, and that's a fine photo, too.*—ED.

Mole St. Nicholas

SIR: In your December 1959 issue, page 22, you quoted John Harris as saying "We towed some John Ericson monitors from around New York to Philadelphia. We also took the modern monitor *uss Amphitrite* (ARL 29) from Mole St. Nicholas."

I would like to know more about Mole St. Nicholas. Where is it, and for what is it named?

I have heard of *Amphitrite*, however. I believe I boarded her in the spring of 1903 at the New York yard after I completed my training cruise on *uss Hartford* about June that year.—B. M. P., ex-USN.

• *Mole St. Nicholas is located on the western tip of Haiti, opposite Cuba. It now has a population of about 1700 persons. At the time of John Harris' visit, Mole St. Nicholas was authorized as a coaling station for U.S. ships.*

Exactly how the port got its name, we were unable to ascertain. Here's what the dictionary has to say:

Mole (a word of French origin) is "A mound of massive work formed of masonry or large stones, etc., laid in the sea, often as a breakwater; also sometimes the harbor itself."

St. Nicholas, the dictionary goes on to say, is "a bishop of Myra, Asia Minor, who died, according to some authorities, about 345 A.D. He is the patron saint of . . . mariners, merchants, and children."

Situated where it is, Mole St. Nicholas seems appropriately named.—ED.

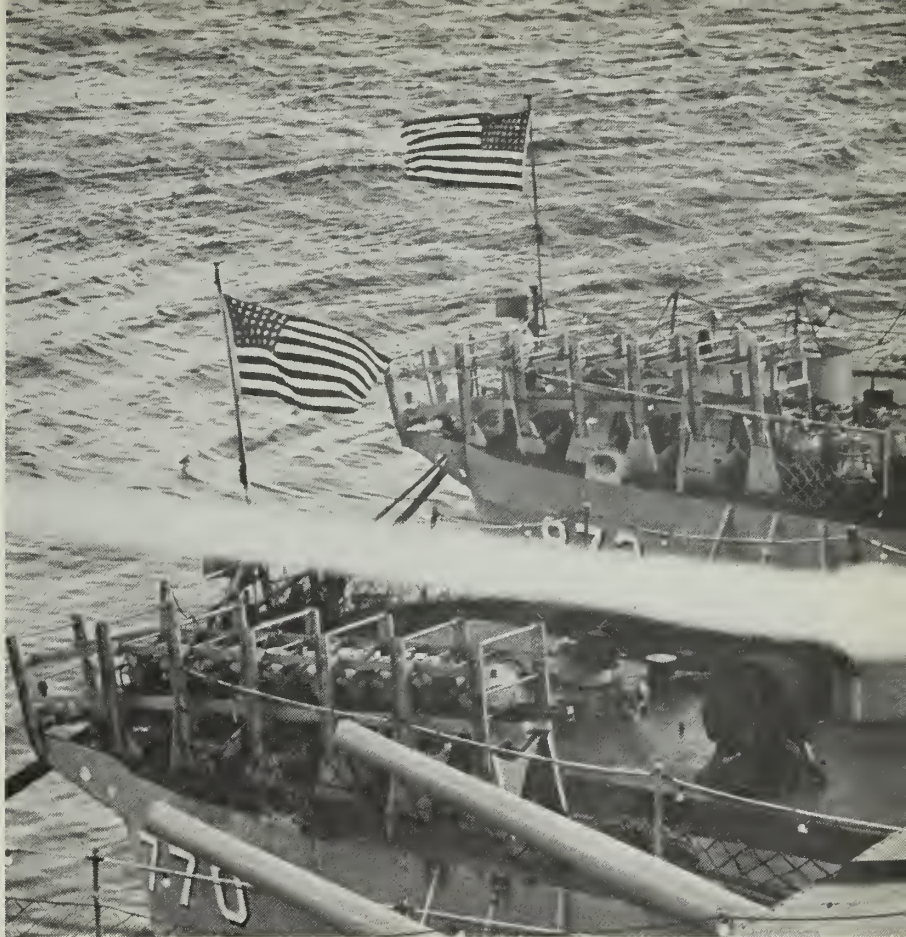
If ADs Up

SIR: The abbreviations for most Navy ratings are related to the full names for those specialties—for example—SM for Signalman, BM for Boatswain's Mate and GM for Gunner's Mate.

I am curious as to the meaning of the "D" in AD, for Aviation Machinist's Mate, since it seems highly unlikely it would stand for Diesel.—R. J. S., ex-USN.

• *The "D" doesn't stand for anything in particular.*

In 1947, when the rating structure was revised, the designators for all the General Service Ratings were converted to two-letter abbreviations. This was done mainly to make the designators



'BLOW ME DOWN'—Tricky winds in Suda Bay, Crete, have flags on sterns of *USS Lowry* (DD 770) and *USS Hawkins* (DDR 873) waving in opposite directions.

easier to handle with machine-accounting methods.

Wherever possible, the rating designator was designed to reflect an approximate abbreviation of the name of the rating. However, this could not be done in all cases.

If the abbreviation, AM, had been assigned to the Aviation Machinist's Mate rating (which was then abbreviated AMM), it would have been necessary to change the designator of the old Aviation Metalsmith rating (now Aviation Structural Mechanic) to something else. So—Aviation Metalsmith remained AM, and another two-letter designator was assigned to what had been AMM. See how simple it all is?—ED.

Constructive Time for Officers?

SIR: Can an officer, who earned constructive time as an enlisted man, count that time in figuring his years of service for retirement?

According to my records, I gained eight months of constructive time by coming in on a minority cruise and another four months by shipping over early, under Alnav 147-47, in 1947. I made Ensign, LDO, in 1952.

If I apply for retirement when I complete 10 years of commissioned service, I will have 25 years of actual service by then, plus more than a year

of constructive time—if it counts.

Could I plan on a pension based on over 26 years' service?—J. F. S., LT, USN.

• *The statutes which authorize constructive service credit for minority enlistments and for enlistments terminated within three months of the normal expiration of enlistment or extension of enlistment apply only to enlisted men. Therefore, you would not get credit for 26 years.*

In other words, no—officers are not credited for constructive time.—ED.

Wearing the Uniform Right

SIR: Since everyone nowadays seems to be talking about effective leadership, I would also like to make a few comments.

To begin, I believe the first requisite for a Navyman is to present a good military appearance—not only for the benefit of his colleagues, but for the public as well. It seems to me that this aspect of the Navy is somewhat neglected by a good percentage of personnel in all grades.

I contend that if we are to build up leadership within the service, we will have to start with the personal appearance of its leaders. A senior will not command respect if his personal appearance does not deserve it.



SHIPSHAPE AND SHARP—All stations manned and ready for General Quarters is the situation on board *USS Halsey Powell* (DD 686) during training cruise.

Speaking as a senior chief petty officer, I feel it is my responsibility to set an example in appearance and military etiquette for my juniors, and I expect nothing less of my seniors.

It is not my intention to accuse all Navymen of carelessness in their appearance, but rather to point out that one "crumb" can spoil the reputation and respect of an entire division.

I'd like to point out just a few shortcomings with regard to the uniform, which present an unmilitary appearance, at least in my opinion:

- White hats and cap covers frayed, dirty and discolored.
- Rating badges and service stripes threadbare, faded and torn loose.
- Shoes not shined, laces broken and heels worn.
- Shirt collars curled up, soiled and worn.
- Leather belts worn with khaki uniforms.
- Books and other gear carried in the hip pockets.
- Men with their hands in pockets.

Men of (and with) Constitution

SIR: I cannot guarantee the historical accuracy of the information below, which appears on a tray I recently purchased. However, it gave me a chuckle, and I thought your readers might enjoy it too.

"On 23 August 1779, *uss Constitution* set sail from Boston. She left with 475 officers and men, 48,600 gallons of fresh water, 7400 cannon shot, 11,600 pounds of black powder and 79,400 gallons of rum. Her mission—to destroy and harass English shipping.

"Making Jamaica on 6 October, she took on 826 pounds of flour and 68,300 gallons of rum. Then she headed for the Azores, arriving there on 12 November. She provisioned with 550 pounds of beef and 64,300 gallons of Portuguese wine. On 18 November, she set sail for England.

"In the ensuing days she defeated five British men-of-war and captured and scuttled 12 English merchantmen, salvaging only the rum. By 27 January, her powder and shot were exhausted.

"Unarmed, she made a night raid up the Firth of Clyde. Her landing party captured a whiskey distillery and transferred 40,000 gallons aboard by dawn. Then she headed home.

"*Constitution* arrived in Boston on 20 Feb 1780 with no cannon, no shot, no food, no powder, no rum, no whiskey and 48,600 gallons of stagnant water."

—Lee Rocke, New York, N. Y.

• There's just one flaw in this interesting account. *Constitution* wasn't launched until 21 Oct 1797—more

than 17 years AFTER your tray has her returning to Boston.

Got any more like this one?—Ed.

• Wallets hung over the top of the trousers in saddlebag fashion.

One reason for carelessness about the uniform is the fact that some personnel are under the impression that their uniform is only a working uniform, to be worn when absolutely necessary. This misconception (in my opinion) clearly indicates that such personnel are not being properly indoctrinated by their seniors or leaders. Otherwise, they would show more respect for, and have more pride in, the uniform of the U. S. Navy.—R. Z. W., SMCS, USN.

• Well said. Your views sound like a good start in the right direction.—Ed.

Promotion Opportunities

SIR: In the few years I have been in the Navy I've seen many men who passed the examinations for advancement in rate time and time again but were not advanced because of quota limitations. As a possible solution to this problem, I would like to recommend a change to the present examination system.

It is understood that there must be certain limitations as to the number of persons who can be advanced each year. However, wouldn't it be more appropriate and economical to give advancement examinations only once a year? And, a result of this annual exam, advance those within the pre-determined limitations and place the others who qualify (those who'd normally lose out because of quotas) on a waiting list. Then, in six months, instead of administering another exam, fill vacancies from personnel on the waiting list.

I think such a system would be economical and at the same time be a big boost to morale as it would give a fair shake to those who "get quota-ed" time after time.—C.A.H., YN3, USN.

• Examining once a year, and maintaining an eligibility list of personnel not advanced owing to quota limitations, has been explored. It was determined, however, that such a system is not feasible for personnel in the lower pay grades, since the majority of them are serving in their first enlistment and only about 20 per cent of them reculいた.

It is felt that your system would not work for this reason: Say that on 16 May, the Navy required 1000 PO3s and 2000 passed the examination. Of these, 1000 would be rated and the remaining 1000 placed on a waiting list. Then, on 16 November, the Navy needs 1000 more PO3s and goes to the waiting list. But, instead of 1000, there are only 200 left. The other 800 have been discharged or released to inactive duty. Had another examination been administered, there would be 1000 persons available for advancement on 16 November.

Your suggestion was in the right direction but . . . any more ideas?—Ed.

First Medal of Honor

SIR: Just for the record, the first Navy Medal of Honor went to seaman John Williams of *uss Pawnee* for action against Confederate batteries near Aquia Creek, Va., on 21 Jun 1861.

This information appears in Roscoe and Freeman's *Picture History of the U. S. Navy*.—LCDR M. F. Studebaker, USN.

• We've spent many pleasant hours poring through the book you mention. However, we can't quite go along with your interpretation of the statements made in it.

Our copy of *Picture History* states (in Para. 666): "Action at Mathias Point was also memorable for episode in which enlisted man won Navy's first Medal of Honor."

Paragraph 668, on facing page, further states: "On April 3, 1863, Naval Secretary Gideon Welles awarded the [Medal of Honor] to some 30 Union sailors. Among the first citations approved was that of John Williams, captain of the maintop, *uss Pawnee*, 'for conspicuous gallantry in action during the attack on Mathias Point.'"

As we see it, Williams could have been the first, and most certainly was among the first, to have received the Medal of Honor. But he was not necessarily the first.

According to the book *Medal of Honor* (1861-1949), Williams was one of 41 men who were awarded a Navy Medal of Honor as a result of General Order 11. Which one of these actually received the first medal is not known.

However, so far as we know, Williams did perform the earliest deed for which a Navy Medal of Honor was presented. Here is the citation which described his action:

"Serving as captain of the maintop of *uss Pawnee* in the attack upon

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, *ALL HANDS* Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *American Defenders of Bataan and Corregidor*—The annual reunion will be held at the New Hilton Hotel, Pittsburgh, Pa., on 6, 7 and 8 May. For details, write to Kenneth Curley, 221 Evaline St., Pittsburgh 35, Pa.

• *uss Idaho* (BB 42)—The third annual reunion will be held in Norfolk, Va., on 17, 18 and 19 June. Write to *uss Idaho* Association, P. O. Box 8048, Norfolk 3, Va.

• *uss Oklahoma* (BB 37)—A reunion is scheduled for 6, 7 and 8 May at the Hotel Sylvania, Philadelphia,

Ship Reunions

Pa. For information, write to Edward H. Lutz, 673 Lindley Rd., Glenside, Pa.

• *uss South Dakota Veterans' Association of World War I*—The 39th annual reunion of the World War I crew will be held at Everett, Wash., on 9 April. For more details, write to Carl Haggland, 2519 N.E. 59th Ave., Portland 13, Oreg.

• *Submarine Veterans of World War II*—The sixth reunion is scheduled for 22-26 August in San Diego, Calif. For additional information, write to Ernst T. Rosing, 1409 S. East Ave., Berwyn, Ill.

• *uss The Sullivans* (DD 537)—A second reunion for those who served from September 1943 to December 1945 is being planned. Write to Robert H. Sander, 325 Thatcher Ave., River Forest, Ill.

Mathias Point, 26 June 1861, Williams told his men, while lying off in the boat, that every man must die on this thwart sooner than leave a man behind. Although wounded by a musket ball in the thigh, he retained the charge of his boat; and when the staff was shot away, held the stump in his hand, with the flag, until alongside Freeborn.

Since this first deed for which a Navy Medal of Honor was presented, the Medal has gone to hundreds of men who have distinguished themselves by heroism.—Ed.

Not Time to Retire

SIR: Your recent articles about *uss Scorpion*, SS(N) 589, have been both interesting and informative. I also modestly enjoyed seeing my own small

contribution in your October issue. There is only one sore spot. I must take exception with your rewrite man who added the (Ret.) to my name.

As Mark Twain once remarked, "the report of my demise is highly exaggerated," so in my case the (Ret.) is somewhat premature. I am currently on active duty with the Navy Medical Unit, Tripler USA Hospital here in fair Hawaii. My last tour of sea duty was aboard *uss Stark County* (LST 1134).

In a few years I will be happy to put the (Ret.) after my name and rate, but for now, let's just stick to USNR.—Raymond T. Strunz, HMC, USNR.

• Sorry we turned you out to pasture before you were ready. Now you know how your name will look in print when you do retire.—Ed.

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What Was That Ship?

SIR: In the "Letters to the Editor," back in your October 1959 issue, R. T. Strunz, HMC, USNR (Ret), asked the identity of a former American battleship, sold to Greece, which he saw at Piraeus in 1920. Perhaps I can help.

In 1919, when *uss Dupont*, destroyer 152, arrived at Constantinople, Turkey, I reported to my captain (W. A. Bagaley) that there was an American battleship in the harbor. He told me to look further aft, and I then saw that she was flying a Greek flag. I found

later that this was the old *Mississippi*—renamed *Kilkis*.

Perhaps the one that Chief Strunz saw in Piraeus was the old *Idaho* or *Iowa*—renamed *Lemnos*.—John A. Perry, QMCI, USN (Ret).

• From the sound of your letter, we get the idea you're eliminating the old *Mississippi* as a possibility. If so, the ship in question must have been the old *uss Idaho*.

The *uss Iowa* of that era (our second ship by that name) was sunk as a target at the end of World War I—not sold

to Greece—so she's out of the running.

The second *uss Idaho* was sold to Greece in July 1914, so she's probably the one we're after.

A forerunner of the modern battleships, she was launched on 9 Dec 1905. She displaced 13,000 tons, was 375 feet long, measured 77 feet at the beam.

In 1913 *Idaho* was placed in the Reserve Fleet at the Philadelphia Navy Yard, but soon afterward she was put back in commission to sail to the Mediterranean. While still in those waters, she was sold to Greece.—Ed.

Bosun's Mate Wants to Change His Rate

SIR: I'd like to change my rate to machine accountant. Is it possible to do so, and is there a school or on-the-job training program for such a purpose?

I will obligate myself for any time necessary to receive such school or on-the-job training. My GCT plus ARI total is 125.—N.W.B., BM2, USN.

• You're on the right track, Boats, but you're shooting for the wrong job. Machine Accountant is not one of the ratings that is open for "changes to." The Navy-wide allowance in that rating is satisfactory, and it is not one of the ratings included in the conversion program.

Don't despair, though. With a combined GCT/ARI of 125, there are several other ratings open to you. We won't quote the entire BuPers Instruction (1440.18B) which deals with the rating conversion program, but we will list the eligibility requirements for Class "A" schooling, which is normally offered to personnel in your pay grade under the conversion program.

They are:

(a) Must be a volunteer for change to one of the open ratings.

(b) Must be in one of the ratings in which there is an excess of requirements.

(c) Must meet obligated service requirements.

(d) Must meet test score requirements.

(e) Must be recommended by commanding officer.

(f) Must meet security clearance requirements.

(g) Must have less than 14 years' active naval service at the time of submission of request for school.

The following table may suggest a rating you'd like to switch to, providing you can get a recommendation from your commanding officer, and can meet all the other criteria. We've listed only those ratings which are open to conversion from persons in your pay grade (E-5).

In the case of the QM and SM

ratings, where no schools have been established, your request to convert, if approved, would result in your being placed in "in-service" training. You would be given a primary NEC Code Number showing you to be a trainee for the rating to which you were converting. When you were considered fully qualified as a result of

this in-service training, you would be given an exam for change of rating.

If you were ordered to school in connection with converting your rating, you would be changed in rating in equal pay grade upon successful completion of the course.

Hope this will be of some help to you. Good luck.—Ed.

Rating	Schools	Approximate School Length	Obligated Service	Requirements
AT	AT Class "A"	30 weeks	36 months	GCT + ARI + ETST 170 or GCT/ARI 115 and MECH 55. Normal color perception. Clear speaking voice.
ET	ET conversion course	28 weeks	36 months	GCT + ARI + ETST 170 or GCT/ARI 115 and MECH 55. Normal color perception. Clear speaking voice.
IC	IC Class "A" plus IC Class "C" (Gyro) (only at Great Lake)	26 weeks	36 months	ARI/MECH 105 or ARI/MECH 100 + ETST 55. Normal color perception.
NW	IC Class "A" (San Diego)	14 weeks	24 months	ARI/MECH 105.
QM	NW Class "A"	20 weeks	24 months	Normal color perception.
RD	RD Class "A"	12-26 weeks	24 months	GCT/ARI 105. Normal color perception. Normal near vision.
RM	RM Class "A"	16-24 weeks	24-36 months	GCT/ARI 100. Radio 60 or demonstrated code ability. Normal color perception and hearing.
SM	No Class "A" school			
SO	SO Class "A"	16-24 weeks	24-36 months	GCT/ARI 110 and Sonar 55 or GCT/ARI 105 + Sonar 55 + ETST 55. Normal hearing and color perception. Normal near vision. Clear speaking voice.



TOPSIDE VIEW shows area where Seabees worked at Squaw Valley. At right, they discuss their plan of attack.

Navy Seabees Have Plenty of "Snow-How"

THE SEABEES, tackling a job assigned to them by Congress and the administration, have put their "snow-how" to use at Squaw Valley, Calif., to help make the 1960 Winter Olympics a success.

Their assignment, known as "Operation Packdown," was to turn 125 acres of snow into an area capable of accommodating 12,000 automobiles. In the High Sierras, where Squaw Valley is located, an overnight snowfall can bury a car, so the accomplishment of such a feat presented a sizable problem. The Navy developed a solution to the problem last year, when a special detachment of Navy Mobile Construction Battalion Ten (MCB 10) completed a series of successful experiments at the Olympic site. Using a technique they had developed for the construction of snow aircraft runways in Alaska and Greenland, the Seabees packed down the snow to form a level area.

Snow compaction is one phase of the Navy's Polar Research Program. The Navy's first major field experiments in snow compaction were conducted on the Greenland Ice Cap in 1953 and '54. Later, Polar Division of the Naval Civil Engineering Laboratory at Port Hueneme, Calif., which has pioneered most of the Navy's research in snow construction and compaction, furnished much of the special equipment used in cold weather experiments during Operation Deep Freeze.

In 1957 and '58, when the Polar Division was making snow compaction tests at Truckee, Calif., the Olympic Commission became inter-

ested in the possibility of using the pack-down method to make a parking area on the floor of Squaw Valley to take care of the thousands of cars and buses bringing spectators to the Olympic site.

The average annual snowfall at Squaw Valley is 450 inches, and the average depth of snow there is 108 inches. In February 1959, 49 inches of snow fell in a single day.

The successful Seabee experiments in the area led to a conference between Navy Civil Engineer Corps officers and the Olympic Commission—and later—to a recommendation by President Eisenhower that federally appropriated funds be used for the construction of the ice arena for the skating events at the Winter Olympics. The appropriation also included money for the armed forces to lend a helping hand during the Olympics, and special funds were set aside for the Navy to conduct a series of snow compaction tests at Squaw Valley in the winter of 1958-59 to determine the problems the Seabee project would involve.

During last year's tests the Seabee Detachment built a parking area big enough for 350 vehicles, which ranged in size from small European cars to huge passenger buses. The area provided the Seabees with the same sort of terrain, snow and weather conditions they encountered this year during Operation Packdown.

For that project, the Seabees had a crew standing by on a 24-hour basis. As soon as new snow hit the ground, they went after it with a five-ton steel roller. After the roller's corrugated surface broke up the

snow, the parking area was re-rolled with a smooth-faced roller. Then, a pulverizing process, employing a rotor mechanism, was used to chew the snow into fine particles and discharge them back onto the snow pack. The pulverizing rotors are eight feet wide and studded with many small, hoe-like blades that rotate at up to 800 revolutions per minute. The Civil Engineering Lab designed new drive systems for these units, and powered them with larger engines.

After the pulverizers had done their job, another pass was made with the smooth-faced rollers (which were entirely designed and developed by the Civil Engineering Lab). Seven of these were used.

Next, the area was scraped level by two tractor-pulled snow planes, which are modified versions of conventional construction equipment. They are mounted on skis, with hydraulic steering. In addition, the planer blades have been changed so they can be used for either planing or grading.

The planing was followed by another pass with the rollers. Then, two modified fertilizer spreaders were used to cover the planed area with sawdust. This helped protect the snow from the heat of the sun, absorbed moisture and provided traction for the cars and buses using the parking area.

Without the Seabee's help, spectators and participants would have had to park at Tahoe City—six miles from Squaw Valley—or at Truckee—11 miles away.

—Fred W. Doby, JO1, USN.

★★★★ TODAY'S NAVY ★★★★★



HOME GROWN MUSIC—Cruisemen of USS *Macon* (CA 132) being entertained by their own band. L. to r., S. R. Howard, CSSN, J. D. Everett, CS1, C. C. Lord, AK3, CWO W. G. Murphy, Z. A. Strait, GM3, and M. H. Schwartz, SA.

Silver in the Oil

Another safety feature in Navy flying is a newly-developed technique which makes possible the evaluation of aircraft engine condition by analyzing engine oil.

Simply stated, the process consists of analyzing samples of engine oil with a spectrometer to determine the kind and amount of metals present.

A one-ounce sample from the engine oil reservoir is burned between two carbon electrodes in a direct-reading spectrometer which identifies the metals and indicates their quantity.

A high concentration of silver in

the oil, for instance, indicates a faulty bearing. Excessive chromium denotes cylinder wall damage, while a large amount of aluminum might be caused by piston or valve guide failure.

The new process was developed by the Bureau of Naval Weapons in its Engineering Materials Laboratory at NAS Pensacola. While not previously applied to aircraft engines, the technique has long been used by railroads and other operators of diesel equipment.

BuWeps thinks similar methods might be applied to checking out gas-turbine engines. NAS Pensacola engineers are testing that concept.

Latest in Sub Tenders

When USS *Proteus* (AS 19) puts out from Charleston, S. C., in the near future, the mobile concept of our new fleet ballistic missile submarines will take another step forward.

Proteus—the Navy's largest and most modern sub tender—will provide full mobile base facilities and support for our Fleet of FBM and other nuclear-powered submarines. The converted tender will have the capabilities for full nuclear reactor support and facilities for handling, replacement and limited servicing of the *Polaris* fleet ballistic missile.

To accomplish these tasks—which were not provided for in her original design—*Proteus* had to be cut into two parts and have a “plug” inserted 12 feet forward of the original midship. (*Proteus* was originally built in 1942, as an 18,000-ton, 530-foot *Fulton* class tender. She now displaces an additional 500 tons and is 44 feet longer.)

The surgery and addition of more displacement to *Proteus*—technically referred to as “jumboizing”—was a delicate and complicated operation. When a ship's length is increased, more longitudinal strength must be added so that it will not break apart.

The new plug added to *Proteus* was six decks high (63 feet, 7 inches) and had a beam of 73 feet. The bare hull weight of the 44-foot midsection weighed about 500 tons.

Many detailed plans had to be worked out before this plug could be inserted. When the job actually began, much of it had to be accomplished at night. Thermal expansion caused by the sun's heating has a tendency to make an intact ship grow toward the ends. A gap to allow for this had to be included in the initial plans and compensated for in the design and construction of the plug.

All *Proteus*' stability characteristics had to be carefully studied so that the stern section would float after it was cut from the forward part. After the ship was trimmed to the proper attitude, the forward section was flooded and held on blocks in the drydock. This served as a point

YESTERDAY'S NAVY



On 2 Mar 1815 the United States declared war on Algiers and ordered a squadron under Commodore Stephen Decatur to the Mediterranean. On 3 Mar 1819 a law was passed setting up a system for naming Navy ships. On 9 Mar 1847 the Navy landed General Winfield Scott's army at Vera Cruz, Mexico. On 20 Mar 1920 USS *Maryland* (BB 46) was launched at Newport News, Va. On 31 Mar 1941 the South Greenland Survey Expedition arrived in Greenland to locate and recommend sites for military and naval installations and to gather hydrographic information.

of reference in positioning the after section. (Holes were burnt into the forward section in order to flood it and destroy its buoyancy.)

Before the hull was cut, stiffening braces were installed in the forward section of the ship in order to strengthen the hull structure since there were no through transverse bulkheads at the point where the cut was to be made.

It took a crew of workmen only two days to make the cut. Working inside the ship, they worked from extreme outer to inner areas. The cut was not straight, but recessed in spots.

When the cut was completed, the stern section of the hull was pulled aft and the drydock was then pumped dry, leaving the separated sections resting on oak-capped blocks. Almost immediately, the existing gap in *Proteus'* midsection began to be filled. A number of 29-foot sub-assemblies that had been constructed in the shipfitter's shop ashore, were lowered into their proper position. The size of the sub-sections were limited because of the restricted capacity of the drydock crane facilities.

As the plug construction advanced, the various sub-assemblies were welded to the two cut surfaces of the original ship. Upon completion of this phase of the conversion, the lengthened ship was floated out of the drydock for its final fitting out period.

Proteus has been having her navigation and electronics equipment installed. She then completes all machinery tests before beginning her dock trials. Sea trials will commence on 24 May and commissioning is scheduled for 17 Jun 1960. Expected completion date is 1 Jul 1960.

Proteus will then become operational—about the same time as *uss Patrick Henry*, SSB(N) 599, our second *Polaris*-firing sub. This nuclear-ballistic missile sub tender and the nine FBM submarines that are in operation or under construction, will be assigned to SUBRON 14 in the Atlantic Fleet.

Angle Solver for *Astor*

A new fire control instrument, called the Mark 18 angle solver, is being developed for the Bureau of Naval Weapons under a \$2.5 million contract.

It will be used to control the *Astor* torpedo, which has the longest



HERE'S HOW *USS Proteus* (AS 19) is being converted to handle FBM subs. It was cut amidships, and a 'plug' to accommodate new gear was inserted.

range of any operational underwater weapon. The transistor-powered apparatus can also control the firing of most other operational torpedoes.

The Chief of the Bureau of Naval Weapons has said that the *Astor* torpedo promises to be one of the Navy's most reliable and effective defenses against enemy submarines.

TV Probes Deep

Molars and bicuspsids, or maybe an appendix, brought to you in living color?

It just may happen, now that a new instrument which makes it possible for a dentist to view any part of a patient's mouth, highly magnified, on a TV screen has been perfected.

Developed by private contract under the sponsorship of the Office of Naval Research, the new device was successfully demonstrated recently at the U. S. Naval Dental School, Bethesda.

The new system consists of a bundle of optical fibers bound together in a small whip-like cable, with a fingertip-size lens arrange-

ment at the probing end. It is coupled to a closed-circuit TV camera at the other end.

A bundle contains up to 10,000 of the hair-like fibers. Each tiny fiber picks up light from a microscopic section of the surface in front of it and transmits it to the other end. With thousands of the fibers bound tightly into a cable, a picture made up of the thousands of light segments is sent from the lens inside the patient's mouth to the TV camera and from there to the screen. There the tooth, or a portion of it, is seen magnified up to 35 times its actual size.

The Surgeon General of the Navy feels that the new instrument will be very useful in dental procedures, promises improvement in dental training, and, with further development, could be adapted to other medical usage.

TV cameras have been used for some time in very limited dental intraoral application. They could view only part of the mouth, presented a difficult lighting problem, and caused discomfort.



TOPSIDE PALS—Submarine rescue vessel, *USS Tringa* (ASR 16), stands by to rush to the assistance of submariners should trouble develop down below.

SERVICE JACKET

Among recent naval activities:

- *uss Tarawa* (CVS 40) entertained some 500 dependents and friends on a one-day family cruise.

- *uss MSC 286* was transferred to the Korean navy and is now known as ROKNS *Kum Kok* (MSC 525).

- *uss John S. McCain* (DL 3) entertained more than 10,000 Burmese during a four-day visit to Rangoon—the first U. S. warship to visit Burma in four years.

- The first nuclear ship to be built in the South, the FBM sub *Robert E. Lee*, SSB(N) 601, was launched at Newport News, Va.

- The 28,000th landing and the 25,000th catapult takeoff were chalked up on the same day by *uss Hancock* (CVA 19) of the Seventh Fleet.

- A few days later, LTJG John W. Potter, USN, scored *uss Midway's* (CVA 41) 80,000th landing.

- And—the following day, LTJG R. R. Smiley, III, made the 22,000th landing of an A4D on the deck of *uss Ticonderoga* (CVA 14).

- Meanwhile, Patrol Squadron 48 returned to San Diego after a six-month tour of duty in the Western Pacific.

- *uss Shangri La* (CVA 38) is in the Bremerton Naval Shipyard for routine overhaul after her most recent Far East tour.

- *uss Toledo* (CA 133) concluded her Far East good will tour with a five-day visit to Saigon, Republic of Viet-Nam.

- This was followed by a three-day good will visit by *uss Saint Paul* (CA 73) to Djakarta, capital city of Indonesia.

- At Subic Bay, Philippines, *uss Thetis Bay* (LPH 6) received a special CNO Safety Award for her 16,000 accident-free helicopter landings during three years of operations since her commissioning as a helicopter assault carrier.

- *uss Portunus* (ARC 1) has been recommissioned the NRP *Medusa* following her transfer to the Portuguese navy under provisions of the Military Assistance Program.

- *Scorpion*, SS(N) 589, ninth atom-powered submarine to join the nuclear underwater fleet, was launched at Groton, Conn.

- The Navy's deep-sea diving bathyscaph *Trieste* broke the all-time world depth record when it

reached an underwater depth of 18,600 feet in the Pacific Marianas Trench, near Guam. It was assisted by *uss Lewis* (DE 535) and *Wandank* (ATA 204).

- *uss Essex* (CVA 9), oldest combatant carrier in active naval service, racked up her 94,000th arrested landing while conducting exercises in the Med.

- Ships of Amphibious Squadron One, which has been deployed in the Western Pacific, have returned to their home port of San Diego. Home-comers include: *uss Henrico* (APA 45), *Lenawee* (APA 195), *Noble* (APA 218), *Bexar* (APA 237), *Union* (AKA 106), *Washburn* (AKA 108), *Epping Forest* (LSD 4), *Thomaston* (LSD 28), *Comstock* (LSD 19), *Washtenaw County* (LST 1166), *Terrell County* (LST 1157), *Whitfield County* (LST 1169), *Dunn County* (LST 742), *Washoe County* (LST 1165), *Floyd County* (LST 762) and *Stone County* (LST 1141).

- *uss Claxton* (DD 571) is the latest of five destroyers to be transferred to Germany under the Military Assistance Program. The others who have been, or will be, made available are *ex-Ringgold* (DD 500) and *ex-Wadsworth* (DD 516) and *uss Dyson* (DD 572) and *Charles Ausburne* (DD 570).



PROBLEM TIME—Trademen of Air Early Warning Training Unit, NAS Patuxent River, set radar generator.

Leaving the Active Fleet

Twenty-two ships of the Atlantic and Pacific Fleets will be inactivated and placed in reserve by 30 June.

Nine ships are in the Pacific Fleet and 13 in the Atlantic Fleet. The move is part of Navy policy to place more of its older ships in reserve status and thereby make funds available for rehabilitation and modernization of other ships remaining in the Fleets.

Ships to be deactivated in the Atlantic Fleet are: *uss Gatling* (DD 671), *Dashiell* (DD 659), *Cotten* (DD 669), *Caperton* (DD 650), *Daly* (DD 519), *Cassin Young* (DD 793), *Hale* (DD 642), *Benham* (DD 796), *Jack W. Wilke* (DE 800), *Robinson* (DD 562) and *Snyder* (DE 745).

Pacific Fleet ships are *uss Floyds Bay* (AVP 40), *Onslow* (AVP 48), *Mulberry* (AV 27), *Greer County* (LST 799), *Saline County* (LST 1101), *Rice County* (LST 1089), *Currier* (DE 700), *Lewis* (DE 535) and *Perch* (APSS 313).

Ever Heard of Snow Fleas?

Fleas have been found in Antarctica. They were discovered by a team of entomologists working with Operation Deep Freeze '60.

Known as snow fleas or springtails, they are said to be the first known living insect life uncovered in the Antarctic. These black, wingless, primitive-type insects are about an eighth of an inch long. They were found in several stages of development under dry rocks at Hallett Station, 340 miles north of McMurdo Sound.

The springtails, named for their ability to spring several inches at a time by using their tails, are usually quite fast. The fact that 60 specimens were collected in approximately 15 minutes indicates that the flea population in Antarctica is very large.

In addition to the springtails, a few specimens of mites were also found. Measuring less than one half of a millimeter in length, these orange-red, spider-like creatures inhabit the soil in dry areas.

Navymen at McMurdo have found no springtails there. Scientists explained, however, that the insects move about, away from the shelter and warmth of rocks, and sooner or later prevailing winds will scoop some of them up and carry them in the direction of McMurdo area.

Rocket Catapult Escape System

The Navy's new rocket catapult escape system, capable of saving a pilot's life in "bail-out" from ground level to high altitude, is now ready for the Fleet.

It consists of a solid propellant rocket fastened to the pilot's seat, operating as a piston inside another tube which is attached to the aircraft. One feature, unique in propulsion development, is a gas booster tube contained inside the solid propellant.

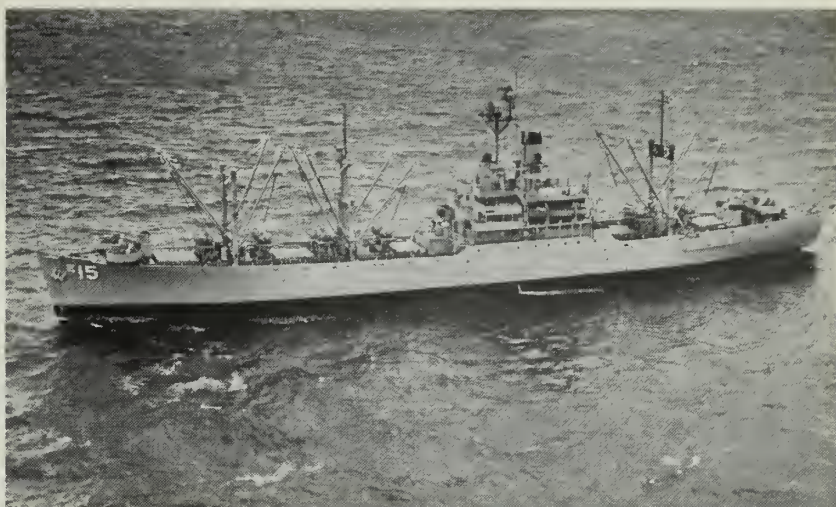
The system works in four stages: (1) propellant gases push the seat out of the aircraft; (2) the rocket projects pilot and seat 200 feet above his aircraft; (3) mechanical device separates pilot from seat; (4) parachute opens, lowering pilot safely.

The system has been under development at the Naval Ordnance Test Station, at China Lake, for two years. It is one of Navy's answers to the fatality factor for aircraft accidents below 2000 feet. Most jet crashes occur because of flameout on takeoff or landing.

The rocket-ejecting equipment pushes a pilot out of the cockpit at a maximum acceleration of 13 G's for .4 seconds. This is safely below the human tolerance figure.

A load-limiting, energy absorbing system protects the pilot in the event of a crash landing.

The system has a two-phase ejection control. The first is triggered



HOT CARGO—Ammunition ships like *USS Vesuvius* (AE 15) take their names from volcanoes, indicative of the explosive characteristics of their cargo.

when the pilot pulls a curtain over his face. If unusual flight conditions prevent this, an alternate control, located at the seat front between his legs, also enables him to eject.

The system is being installed in the A4D attack bomber; it will replace all existing systems in the *Skyhawk*, and all new aircraft will come so equipped.

Carriers Shifted

The Navy's latest moves in a series of planned rotations of its ASW and attack carrier forces have affected three 27,000-ton *Essex*-class flattops.

Triggering the changes was the

shift of the ASW support carrier *USS Tarawa* (CVS 40) to inactive status. *Tarawa* completed its final Fleet ASW exercise early this year and proceeded to Philadelphia, Pa., where she was decommissioned and assigned to the Atlantic Reserve Fleet.

Slated to replace *Tarawa* is *USS Essex* (CVA 9). She'll return from the Med in March and enter New York Naval Shipyard for overhaul and some modernization before being redesignated a support carrier.

The tag end of the triple play will see *USS Shangri La* (CVA 38) shift from the Pacific to the Atlantic Fleet in May as relief for *Essex*. Her new home port will be Mayport, Fla.



DUMMY UP—New rocket-propelled aircraft escape system blasts man-sized dummies to safety during tests.



LITTLE BIG TOP—The side show is just one of the many interesting features in Navyman Parker's miniature circus.

Sawdust and Salt

Model-building is not an unusual pastime among Navymen, but James M. Parker, YN3, has given the hobby a different twist.

He's building a model circus—complete with side show.

According to Parker most other model circus enthusiasts try to recapture the past with oldtime wagon shows. "So far as I know," he says, "there are just two model circus builders who have mud (truck-borne) shows—myself and someone in Maryland."

Jim just started his circus in March 1959, but his love for the world of sawdust, spangles and the spectacular goes back to his boyhood. Whenever the circus was in town, he was

always on hand. He has been a member of the Circus Fans Association of America since 1957.

Now attached to the 14th Naval District Passenger Transportation Office at Pearl Harbor, Parker finds being in the Navy a considerable help in building up his collection of miniature animals and figures. He started the collection when he was in Japan two years ago and now has model animals from all over the world.

These must be just right in every detail, and in his vast menagerie he has camels made in Australia, a rhinoceros from Great Britain and several horses from Germany. Altogether he has a total of 69 members of the horse family, ranging from draft animals to baby burros.

Most of his figures have come from ordinary model railroad sets, but you'd never guess it to look at his nearly completed side show. At present, the attractions include four midgets, a bearded lady, a fire eater and a tattooed lady. Normally, all of them would have been just plain people hanging around a model railroad layout, but thanks to Parker's alterations they have now found their way into his Congress of Freaks.

The owner of the Parker Brothers Circus makes his own flat-bed trucks and wagons, using model trucks and wagons as a base. He then builds the bodies of balsa wood, working with parts from model circus wagons. The finished product then joins a variety of circus vehicles that range from an automatic stake driver to a

"dining department semi"—more commonly known as the "cook house."

Because space is limited, Parker is unable to set up his show in its entirety. He works on one unit at a time, and is now completing his side show.

There is too much sawdust in Parker's blood for him to stop at model building. He also collects circus photographs, posters and music, and occasionally "clowns around" in the familiar face paint and costume of the traditional circus funnyman. He has joined the Circus Historical Society, and he hopes to become a life member of the Circus World Museum.

—By Lynn Turner, JOSN, USN.



ON THE JOB—Jim Parker, YN3, USN, takes care of clerical tasks at 14th ND, Passenger Transportation Office.



OFF THE JOB—Yeoman Parker is a circus man at heart. Here, he dons clown costume for some youngsters.

Loran-C Hits New High

A radio navigation system called Loran-C, which will permit a ship to determine its position accurately at long ranges from transmitters, has been tested with favorable results.

An outgrowth of earlier pulsed-type radio navigational systems, Loran-C achieves a greater range because it operates at a lower frequency and uses more sophisticated circuitry than did earlier systems. The Loran-C system also provides a ship with a more precise method of "position fixing" than did earlier systems.

The evaluation was based on a study of the East Coast Loran-C system. This system, with transmitting stations in Massachusetts, North Carolina and Florida, has been operated by the Coast Guard since 1957, using older Loran transmitters which have been modified.

The evaluators found that in transmitting ground waves close to the earth's surface, the system operated to a range of 1400 nautical miles during the day and about 1000 nautical miles at night with high precision. Encouraging results were also obtained using this system to ranges of 1800 nautical miles during the day and 2300 nautical miles at night, with slightly larger errors. The latter ranges were attained by bouncing the signals off the ionosphere, a method which gives a greater range with somewhat reduced accuracy.

To study the system, a civilian firm analyzed one year's operation of a monitor station located about 550 miles from the closest transmitter and about 900 miles from the most distant transmitter. The results indicated that a ship in this area could expect 95 per cent of its fixes to be within 800 feet of the correct geographical position. Results also indicated that even greater accuracies were obtainable.

The North Carolina station sends out a series of radio pulses which are picked up by the Massachusetts and Florida transmitter stations, and by ships and aircraft using the system. Following receipt of the master pulses, the Florida and Massachusetts stations transmit similar pulses after a closely controlled time interval. Upon receipt of the later pulses, ships, in turn, measure the time differences between the receipt of pairs of pulses from the North Carolina and Massachusetts stations

and from the North Carolina and Florida stations. These "time difference" readings correspond to "lines of position," printed on regular navigation charts by the Hydrographic Office, and indicate ship's position at their point of crossing.

The final evaluation report recommended that Loran-C systems be installed in other areas of the world and that its use be encouraged as a universal long-range electronics navigational system.

Floating Dock School

The PHIBPAC dock landing ship *USS Colonial* (LSD 18) has been dubbed "the floating schoolhouse." The reasons are quite obvious.

Crew members of this LSD spend a great deal of their spare time hitting the books in courses ranging from Russian to auto mechanics. All this is part of a self-improvement program launched by *Colonial's* CO—CDR Harold Durham, USN.

When CDR Durham reported aboard last August, he discovered that one-fourth of his crew had never completed high school and few knew about the education available through the United States Armed Forces Institute.

Now, the I and E office with its 170 educational texts and the mess deck—which has been turned into a study hall—have become the two most popular places aboard the ship.

More than 200 counseling interviews have been held during the last three months and 16 men have enrolled in 15 different USAFI courses. In addition, 27 crew members have passed General Educa-



ZIPPY ZUNI—Navy test pilot, CDR N. J. Smith, steadies *Zuni* rocket as G. E. Cook, AOAN, loads an F4D *Skyray*.

tional Development tests—24 at the high school level and three at the first year college level.

Colonial's self-improvement program, however, is not limited to individual educational advancement. During the past quarter, 27 lectures on naval leadership and other subjects aimed at improving the quality of the military have been presented.

In addition, the officers and blue-jackets have viewed 94 training and information films on varied topics.



BRIGHT SHIP—Heavy cruiser *USS Bremerton* (CA 130) lights up the area in port at Sydney while celebrating anniversary of Battle of Coral Sea.



THE END—Coastal minehunter, *USS Bittern* (MHC 43) is one of Navy's many little ships that perform big jobs.

New Fire Control System

The Navy's first fleet ballistic missile submarine *uss George Washington*, SSB(N) 598, which joined the Fleet on 30 Dec 1959, features a fully transistorized shipboard fire control system.

It is designed to provide the *Polaris* missile's inertial guidance system with all the information necessary to guide the missile successfully to its target.

Heart of the new fire control system is a battery of computers into which target data is fed. They in turn transmit intelligence to the guidance system of the missile.

As the ship moves prior to the launching of the missile, the system automatically makes constant corrections to the guidance intelligence. The system is capable of operating under all conditions of sea and weather. It contains more than 15,000 transistors, 1054 digital boards, 18,000 diodes, 40,000 circuits and 70,000 terminations. Although it is complex, it has been made compact enough to fit within the allotted space aboard the 380-foot nuclear sub.

The fire control system will continuously provide accurate information to the missile guidance system despite sea conditions which induce roll, pitch, yaw and other motions of the ship. It will also provide information required for operational

control of the missile launching, including monitoring and controlling countdown procedures.

Round the World with *Canberra*

uss Canberra (CAG 2) is on her way around the world on a combination goodwill cruise and operational mission that will last for about nine months.

During the voyage, which started from Norfolk, Va., *Canberra* will operate with every major U. S. Fleet around the globe and, at the same time, play an important role in the People-to-People program. By her transit of the Panama Canal she becomes the first surface-to-air guided missile ship to enter Pacific waters.

Her service in the Pacific will begin with the U. S. First Fleet off the California coast. Then, she'll move on to join the Seventh Fleet in the Far East to give Navy units there a chance to operate with a ship of her type for the first time. She'll then pass through the Suez Canal to join the U. S. Sixth Fleet in the Med some time in August.

Commissioned on 14 Oct 1943 as a heavy cruiser, *Canberra* is the only cruiser in the Navy not named for an American city. She was given her unique name as a result of the First Battle of Savo Island in World War II. During that battle, fought on 9 Aug 1942, the Australian cruiser *Canberra* was lost in action after she joined three American cruisers in a night engagement against Japanese naval forces. In her honor an American ship scheduled to be *uss*

Pittsburgh was renamed *Canberra*.

The four-year conversion job which turned the ship into the Navy's second guided missile cruiser was completed on 15 Jun 1956 at the Philadelphia Naval Shipyard. Her principal armament now consists of two *Terrier* surface-to-air guided missile launchers aft, and two mounts forward containing a total of six 8-inch guns, plus additional 3- and 5-inch guns.

Newest in Jet Fighters

The newest in the Navy's series of *Crusader* jet aircraft has made its first flight, and will be delivered to the Fleet later this year.

Called the F8U-2N, it's bigger, faster and has more firepower than its predecessors, the F8U-1 and F8U-2 day-fighters now operational with land and carrier-based units of the Navy and Marine Corps.

Furnishing the speed—nearly twice that of sound—is a J-57 engine. The firepower is provided both by *Sidewinder* heat-seeking guided missiles, and by provisions for some more advanced missiles now under development.

The pilot, too, will get some help in the form of an autopilot, which will hold altitude, heading and pitch and roll attitude while he is concentrating on his mission.

Ventral fins, mounted under the tail assembly, provide increased stability at high speeds. Increased fuel capacity will enable the F8U-2N to remain in the air for more than three hours without refueling.



ALL TOGETHER—Submarine tender *USS Sperry* (AS 12) rides between her mooring buoys with most of the submarines of Squadron Three alongside.

Atomic Fuel Gauge

A new fuel gauge, which uses sources of atomic energy to measure the amount of fuel in aircraft and missiles, has been developed for Navy use.

Capable of measuring amounts of fuel with greater accuracy and reliability than conventional devices, the light-weight, transistorized gauge has been tested at altitudes up to 38,000 feet, and has performed accurately in all flight attitudes.

All types of solid and liquid propellants can be measured by the gauge, and its performance is not affected by impurities in the fuel. It is easily installed, and automatically accounts for differences in hydrocarbon, or petroleum-based fuels which affect the accuracy of conventional devices.

The radiation materials are mounted on the sides of each fuel tank, along with detectors. Gamma rays given off by the radioactive materials pass through the fuel supply, decreasing in intensity as they do so. The amount of fuel is determined by the intensity of the gamma rays reaching the detectors. A ratemeter converts pulses, picked up by the detectors, into DC voltage, and the quantity of fuel is recorded in pounds by an indicator.

The new fuel gauge was developed for the Navy under private contract. Additional tests are scheduled.

Balloons Take Off from Flattop

A seven-ship Navy task group recently participated in a cosmic ray research program in the Caribbean during which the world's largest balloons were launched from the ASW support carrier *USS Valley Forge* (CVS 45).

This program is jointly sponsored by the Office of Naval Research and the National Science Foundation. The balloons were designed to measure cosmic ray activity at altitudes up to 120,000 feet. The launching operation was called *Skyhook 60*.

Accompanying *Valley Forge* on the operation were the destroyers *USS Davis* (DD 937), *Compton* (DD 705), *Harlan R. Dickson* (DD 708), *Hyman* (DD 732), *Purdy* (DD 734) and *Beatty* (DD 756).

The balloons, gondola and rigging towered more than 500 feet above the carrier's deck just before launching. The balloons held more than



UNDERCOVER MEN—Cruisemen on board *USS Newport News* (CA 148) look like spacemen as they check for radiation during battle problem.

10 million cubic feet, as large in diameter as a football field is long, when inflated at ceiling altitude. They were made of seven acres of one-thousands-of-an inch polyethylene plastic.

Although balloons launched from an aircraft carrier normally create unusual problems, Navy balloon experts said that the gigantic balloons launched from *Valley Forge* went off more easily than previous launchings from land.

Surface wind is one of the most serious problems encountered in launching towering balloons. But an aircraft carrier, by steaming in the same direction as the wind, and with the same speed, can create "zero wind across the deck," which in effect produces an absolute calm.

Another requirement of the experiment which led to the use of an aircraft carrier was the desirability of launching the balloons near the magnetic equator. The magnetic field is stronger near the equator and filters out cosmic rays of the type that scientists did not want to study in the recent experiments.

Tracking the balloons entailed precise teamwork by the ASW group. The radio and radar devices of the seven-ship task group, as well as that of aircraft of Airborne Early Warning Squadron Four, were used to track the balloons.

The balloons carried a payload of emulsion sheets sensitive to cosmic ray activity, much in the same manner as photographic film is sensitive to light.

Remote-controlled radio devices were used to bring the gondola to the surface of the sea where it was recovered by the escorting destroyers. The emulsions were then returned to the University of Chicago and processed by scientists who are engaged in cosmic ray research. The huge stack of processed emulsion sheets will eventually be divided among scientists in 14 countries for analysis.

Cosmic ray research with balloons is not new. In these recent experiments, however, each balloon carried an unprecedented weight of 2500 pounds, including 800 pounds of emulsion, a gondola, ballast and control equipment, to a height above most of the earth's atmosphere.

The 10-million-cubic-foot balloons used to lift this weight were by far the world's largest. They were almost twice as big as the previous record holder, a six-million-cubic-foot Navy balloon that carried a 94-pound payload to an altitude of 149,000 feet during a cosmic ray flight in September 1959.

Upon completion of the cosmic ray experiments, the seven-ship task group conducted antisubmarine warfare exercises in the Caribbean area.

1960 All-Navy and Inter-Service Sports Program

SPORT	ALL-NAVY	INTER-SERVICE	OLYMPIC TRIALS
Basketball	8 - 11 March NAS Seattle	21 - 26 March Denver, Colo.	31 March - 1 April Denver, Colo.
Boxing	30 March - 1 April NavSta, Norfolk	27 - 29 April Quantico, Va.	11 - 13 May San Francisco
Bowling	27 - 29 April NAS Patuxent River, Md.	None	None
Track	None	10 - 11 June Camp Lejeune, N. C.	1 - 2 July Stanford University, Palo Alto, Calif.
Tennis	3 - 6 August NavSta, Newport, R. I.	15 - 19 August Army-Navy Country Club, Washington, D. C.	None
Softball	6 - 9 September San Diego area	None	None
Golf	26 - 29 September San Francisco area	3 - 7 October Fort Ord, California	None

The above schedule and details of the 1960 All-Navy Sports Program were announced in Change 2 to BuPers Inst. 1710.1E.

All-Navy Sports

The All-Navy Basketball Championship to be held earlier this month at NAS Seattle officially opens the 1960 All-Navy and Inter-Service Sports Program.

(This tournament is not scheduled to be concluded in time to announce the winners in this issue.)

An All-Star squad was selected from the five teams representing the Atlantic Fleet, North Atlantic, South Atlantic, Pacific Coast and Western Pacific regions that participated in the All-Navy finals. This All-Navy team competes in the AAU Inter-Service Basketball Tournament at Denver, 21-26 March. From these play-offs, an All-Star Armed Forces Team is to be picked for the Olympic trials to be held in Denver, 31 March, 1-2 April.

In addition to basketball, this year's All-Navy/Inter-Service Sports Program embraces bowling, boxing, tennis, softball and golf—for men—plus bowling, tennis and golf, for women.

BOWLING

This year, All-Navy Bowling champs will be determined through actual man-to-man competition rather than telegraphic matches. The final roll-offs will be conducted at NAS Patuxent, 27-29 April. Both men and women will be eligible.

To qualify for the All-Navy bowling finals, men must average 170 and women 140 for 18 games in the regional eliminations.

BOXING

Boxing also returns to the regional

and All-Navy levels this year with the finals slated for 30 March—1 April at NavSta, Norfolk. Each of the five regions are permitted to send a squad of 10 boxers (one for each weight division) plus a coach and manager to the All-Navy finals.

From the finalists a 10-man squad will be selected to represent the Navy in the Inter-Service Boxing Matches at Quantico, Va., 27-29 April. After these matches, each service will select a 10-man squad to represent their service in the Olympic boxing trials at San Francisco, 11-13 May.

TENNIS

The All-Navy tennis finals for both men and women will be conducted 3-6 August at NavSta, Newport, R.I.



ELECTRONIC SAIL—William Thelan, ET3, of USS Northampton (CLC 1), poses with electronic backdrop.

Women will be permitted to participate in the All-Navy golf and tennis finals this year, although they were dropped from basketball and softball competition.

The tennis tournament will consist of single elimination with singles and doubles play in the men's open and senior divisions. Women's play will consist of open division, singles only (best two sets). The senior division is limited to men who have reached 40 on or before 1 Aug 1960.

Men's matches will consist of the best two sets until the semi-finals, then the best three sets.

Regional squads will be limited to a maximum of six male players (four open and two seniors) and four women (open only—singles).

Selected male personnel will make up the Navy squad to participate in the Leech Cup/Inter-Service competition to be held at the Army-Navy Country Club in Washington, D. C., 15-19 August.

SOFTBALL

The 1960 All-Navy Softball championship will be determined in a double elimination tournament in the San Diego area on 6-9 September. Each of the five regions will conduct area eliminations and each will send a 16-man team to the All-Navy finals.

GOLF

Com 12 will be the host command for the 1960 All-Navy Golf tournament scheduled for 26-29 September. It will be played on a course in the San Francisco area that has not as yet been designated.

Competition will be limited to 72 holes of medal play for men in both open and senior divisions and 54 holes of medal play for women in the open division.

Men who have reached 45 years of age, on or before 1 August, may enter the senior division. An eligible senior, however, may also elect to participate in either division—but his total participation must be in the division he selects.

To qualify for the All-Navy Golf tournament, open division players should consistently shoot in the mid-70's or better, while seniors should repeatedly break 85. No qualifying scores have been established for women.

Regional squads will be limited to four men and three women in the open division and two men in the senior division.

Selected male finalists will remain in the San Francisco area to compete in the Inter-Service Golf championships to be held at Fort Ord, Calif., 3-7 October.

In addition to these six sports, a selected track team will represent the Navy at Camp Lejeune, N. C., 10-11 June, in the Inter-Service eliminations for the Olympic track trials to be held at Stanford University, Palo Alto, Calif., 1-2 July.

Mid-Western Gun Toters

If you want to learn about top-notch shooting, bend an ear. Two of the Navy's top rifle and pistol men have some sound advice to offer you.

These experts agree that most of the gun-slinging heroes you see on TV are mighty impressive, but would find rough shooting if they ever fired in competitive matches.

"The fast gun is strictly show—a thing of the present, not of the past," claims Cecil M. McConnell, MA1, USN, the Ninth Naval District's pistol champ. Supporting McConnell's view is Melvin B. Branch, PMC, USN, who recently earned Distinguished Rifle and Pistol badges—the nation's top awards for excellence in competitive shooting. Only 18 other Navymen have gained the awards for proficiency in both categories.

Branch and McConnell both hail from Kansas and are stationed at the Naval Examining Center, Great Lakes.

Referring to TV gun slingers, Chief Branch said, "Accurate shooting demands a stiff wrist and a slow



SURE-SHOTS—Two of Navy's top marksmen, Cecil M. McConnell, MA1, USN, Melvin B. Branch, PMC, USN, pose with some awards for their sharp shooting.

trigger squeeze. The barrels of some of the old Western six shooters were 10 inches long. Imagine whipping one of them out of a holster and hitting a distant target in a split second!"

Navy expert McConnell started shooting competitively in 1955. Since then, he has won 10 trophies and more than 60 medals in top-flight matches sponsored by various military, civil and law enforcement organizations.

Having earned 10 trophies and 80 medals for his marksmanship in two years of competition, Chief Branch is distinguished as one of the Navy's "top hands" in both rifle and pistol.

"We're not taking shots at TV Westerns," McConnell is quick to

point out. "We are only stressing the fact that, if a real shooter expects to hit the target repeatedly, he will take his time and concentrate."

Both of these Kansans were members of the Ninth Naval District team which won the Atlantic Fleet pistol championship last year and placed third in the Fleet rifle team competition. Later, they were selected for the All-Navy matches in San Diego, and again for the National Rifle and Pistol matches at Camp Perry, Ohio.

The National Rifle Association has rated Chief Branch in the "Master" class for both rifle and pistol, while McConnell has earned the NRA's Master in pistol and Expert in rifle.

For years, Navy rifle and pistol championships have been dominated by personnel from ordnance ratings. Branch and McConnell are exceptions to that tradition. Chief Branch, a patternmaker, is assigned to the Examination Development Department which prepares enlisted advancement examinations. McConnell operates IBM equipment used in scoring and processing the service-wide exams.

McConnell is already setting his sights on next year's Navy and Inter-Service matches. He needs one more rifle "Excellence in Competition" award to join Chief Branch in the clite of top U. S. shooters.

Navy life seems to be tailor-made for two of the best guns in the mid-west. Last year they traveled more than 5000 miles carrying Navy colors into five major matches.



FORCE FOR PEACE—In the shadow of a jet engine, men of USS Forrester (CVA 59) watch USS Lake Champlain (CVS 39) and Intrepid (CVA 11).

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

● **EPDOCONUS ESTABLISHED**—The majority of enlisted personnel being assigned to shore duty hereafter will be ordered through the Enlisted Personnel Distribution Office, Continental U. S., which was established on 2 Jan 1960 at NTC Bainbridge, Md.

This new distribution center handles all ultimate duty assignments for active duty personnel within the Continental U. S. for the Chief of Naval Air Training, Chief of Bureau of Medicine and Surgery and District Commandants, as well as the Potomac and Severn River Naval Commands. This also includes district sea duty.

Before this central distribution point was established, personnel being ordered to shore based activities within Continental U. S. were assigned by this Bureau to the Naval Districts or Air Training Commands. These activities then made the ultimate duty assignments.

EPDOCONUS will not handle the assignment of personnel to Fleet Shore Duty, TAR billets controlled by CNATRA and certain Bureau-controlled "B" billets.

● **NEW ODC SYSTEM**—Some officers have already seen and verified their new officer data cards (ODC) which were sent to them in February 1960 from the Bureau of Naval Personnel.

This is the first mailing of the ODC under a new system whereby the Bureau fills out the cards from information compiled on magnetic tape and mails them to the officers

concerned. The taped information is taken from the officer's service record in the Bureau.

In this way the officer knows exactly what information is on file on tape in the Bureau, and it gives him a chance to verify or correct this information.

Officer Data Cards will be mailed from the Bureau to ships and stations quarterly for officers who have reported aboard during the preceding fourth, fifth, and sixth month. For example, officers who reported to an activity in the three-month period, August through October 1959, received their cards in February 1960. In this way, each officer should verify and correct his ODC, if necessary, about every two years.

Complete information about the data cards is contained in BuPers Inst. 1301.34.

● **SELLING YOUR HOME?**—If you are, take another look at Para. 7 of DD 802 (Request For and Certificate of Eligibility).

If you have been buying your home under FHA-military agreements, you are required to notify your commanding officer by means of DD 803 (Certificate of Termination) when the property is sold. Failure to do so may mean that you will be liable for a considerable sum of money.

Here's how it works out: If you fail to notify your CO, the Navy continues to pay its portion of the mortgage insurance even after you have sold your house. When this happens, the Navy Finance Center

has to start action to regain its money.

Where does the money come from? *You*.

To refresh your memory, this is what Para. 7, DD 802, has to say: "I hereby agree that in the event I am issued a Certificate of Eligibility and subsequently obtain financing pursuant to the provisions of Housing Act of 1954, I will immediately notify my commanding officer in writing when I terminate my ownership of the property so financed.

"In the event I fail to notify my commanding officer I further agree that any liability incurred by the military service of which I am a member on mortgage insurance premiums paid subsequent to the date of such termination of ownership will be reimbursed by me."

● **FASTER WO PROMOTIONS**—Regular and Reserve warrant officers will have a shorter wait for promotions after 1 Jul 1960—thanks to a reduction in the service-in-grade requirements for temporary promotions.

For the past several years, promotions for temporary and permanent warrants have both been administered on the same basis, using identical eligibility criteria. However, beginning with the fiscal year 1961 WO selections for promotion (to be made in May 1960), the time requirements for temporary promotions will be relaxed. These requirements, which must be met by 30 June of the fiscal year for which selection is made, will now be reduced as follows:

● Warrant Officer W-1 to W-2—
from three years to two years.

● Chief Warrant Officer W-2 to W-3—from six years to four years.

● Chief Warrant Officer W-3 to W-4—from six years to four years.

The waiting periods for permanent



DON'T CUT IT OUT until you've cut nine other men in by passing on this copy of ALL HANDS Magazine.

appointment which are governed by the Warrant Officer Act of 1954 will remain the same—three, six and six years, is indicated above. A permanent warrant officer advanced temporarily will be issued a permanent appointment to his new grade when he has completed the term of service in his permanent rank as specified by law.

Permanent warrant officers who are twice passed over for temporary promotion to the next higher grade shall be retired, or have their appointments terminated, in accordance with the WO Act of 1954.

An annual announcement will be made to prescribe the field of eligible warrant officers to be considered for selection to the next higher grade. The first such announcement, Alnav 70-59, was issued in December 1959.

The new regulations on temporary promotions were announced in SecNav Inst. 1421.2. Those portions of Article C-7105, *BuPers Manual*, which conflict with the instruction, are being held in abeyance until the manual is changed.

• **TEMPORARY OFFICERS**—The policies and procedures governing temporary officers in the grade of ensign or above who have or will have twice failed selection for temporary promotion to the next higher grade have been reissued and brought up to date in BuPers Inst. 1800.1A.

Temporary officers, whose permanent status is enlisted, are granted the same retirement benefits upon completion of 20 years of active service (of which at least 10 years are commissioned) as Regular and Reserve officers in accordance with Section 6323, Title 10, U.S. Code.

Here are the provisions of BuPers Inst. 1800.1A which apply to temporary officers in the grade of ensign and above, whose permanent status is a warrant or enlisted grade, if twice failed of selection for temporary promotion to the next higher grade.

Unless the needs of the service otherwise require, they shall:

- Be afforded the option of retirement in the grade then held (if eligible for retirement), or revert to their permanent status not later than 30 June of the fiscal year in which they fail of selection the second time.

- If within two years of attaining eligibility for retirement as of 30 June of the fiscal year in which second failure of selection occurs, be

retained on active duty in present grade, subject to the needs of the service and at the discretion of the Chief of Naval Personnel, until eligible for retirement.

- If with less than 18 years of active service, be reverted to their permanent status not later than 30 June of the fiscal year in which they fail of selection the second time.

Individuals affected by this policy will be given a minimum of four months' advance notice before they are subject to mandatory retirement or reversion.

• **SEAVEY SEGMENT TWO**—Navy-men in Seavey Segment Two (1960) will start receiving orders to shore duty in June according to BuPers Notice 1306 of 31 Dec 1959.

In setting the sea-tour commencement cut-off dates, the Chief of Naval Personnel noted that in some cases third and second class petty officers may receive orders to shore duty before some PO1s and CPOs.

This can happen because there are many more billets ashore for certain junior petty officers. If PO1s and Chiefs were brought ashore to fill some of these billets, it would not only be misuse of personnel, but it would leave the Fleet short of senior men.

The following sea-tour commencement cut-off dates have been established for Seavey Segment Two (1960):

RATE	DATE	SF3, FN	...	Mar 56
CSC, 1	.....Sep 57	DCC	.....	Jun 58
CS2	.....Nov 57	DC1	.....	Mar 57
CS3, SN	.....Jun 58	DC2	.....	Feb 57
SHC	.....Sep 57	DC3, FN	.....	Jun 57
SH1	.....Dec 53	PMC	.....	Jun 58
SH2, 3, SN	.....Sep 53	PM1, 2, 3, FN	.....	Mar 57
MMC	.....Mar 57	MLC	.....	Sep 57
MM1	.....Mar 55	ML1, 2, 3, FN	.....	Dec 54
MM2	.....Sep 55	SVC, 1, 2, 3, CN	.....	Jun 58
MM3, FN	.....Nov 55	CEC, 1, 2, 3, CN	.....	Jun 58
ENC	.....Dec 56	EOC/CDC, 1	.....	Jun 57
EN1	.....Apr 56	E02/CD2, 3, CN	.....	Jun 58
EN2	.....Aug 55	CMC, 1, 2, 3, CN	.....	Mar 58
EN3, FN	.....Dec 55	BUC, 1	.....	Sep 57
MRC	.....Sep 56	BU2	.....	Jun 58
MR1	.....Jun 57	BU3, CN	.....	May 58
MR2, 3, FN	.....Jun 58	SWC, 1, 2, 3, CN	.....	Mar 57
BTC/BRC	.....Dec 55	UTC, 1, 2, 3, CN	.....	Dec 57
BT1/BR1	.....Dec 52	SDC	.....	Dec 57
BT2, 3, FN	.....Dec 54	SD1	.....	Dec 54
EMC	.....Jun 58	SD2	.....	Mar 55
EM1	.....Sep 57	SD3	.....	Jun 55
EM2	.....Dec 57	TN	.....	Aug 55
EM3, FN	.....Oct 57			
ICC, 1, 2, 3, FN	.....		
SFC	.....Dec 55			
SF1	.....Mar 56			
SF2	.....Jan 56			

QUIZ AWEIGH

Let's check the various categories and designations of U. S. Navy ships and see how well you're acquainted with the various units of the Fleet.

Navy ships are designated according to their mission, and in turn divided into three broad categories—combatant, auxiliary and service craft.

1. Combatant ships include warships, amphibious warfare, mine warfare and patrol vessels. Which of the following ships is not classified as a warship? (a) CVHA, (b) CVHE, (c) CVE.



2. Ships of this type are used primarily for convoy and ASW duties. This is a/an (a) destroyer escort, (b) escort destroyer, (c) escort vessel.

3. This ship would be classified as (a) warship, (b) patrol vessel, (c) auxiliary.



4. This is a/an (a) inshore minesweeper, (b) coastal minesweeper, (c) minesweeping boat.

5. These small, but important units of the Fleet are (a) mine warfare vessels (b) patrol vessels, (c) service craft.

6. A ship that carries dependents as well as troops would normally be designated as a/an (a) AP, (b) APA, (c) APD.

7. U.S. Navy ships assigned to the Military Sea Transportation Service are identified by their designation and hull number and the prefix (a) "A," (b) "T," (c) "M."

You'll find the answers to this month's Quiz Aweigh in the Blue-jackets' Manual. If you don't happen to have one available, check page 46, of this issue.

THE BULLETIN BOARD

Here's Your Opportunity to Increase Your Monthly Paycheck

PERSONNEL IN PAY GRADES E-4 through E-7 who are recommended by their commanding officer will be permitted to participate in proficiency pay examinations slated for May 1960.

Exams for personnel in pay grades E-4 and E-5, however, will be limited to those serving in the 40 ratings declared critical for fiscal year 1961.

Originally, the examinations scheduled for May were intended for personnel in pay grades E-6 and E-7 only, while the two lower pay grades were scheduled to be examined annually in November. Second and third class petty officers in the critical ratings are being permitted to take the pro pay exams in May, as well as in November, to insure that the loss of proficiency pay awards experienced in fiscal year 1960 does not occur again in fiscal year 1961.

As a result of the November 1959 exams, 25,767 Navy men were granted P-1 awards of \$30 per month, while 15,869 additional awards went unfilled. This is because a sufficient number of personnel—especially in pay grades E-4 and E-5—did not take the exams.

In pay grade E-4, for example, only 11,261 men took the examinations while 13,436 pro pay awards had been allocated. Even if every third class petty officer who took the exam had passed, there still would have been 2275 pro pay awards unfilled. The final outcome, however, left 6240 P-1 awards unassigned.

For the PO2s, the situation was even worse. There were 15,426 awards allocated and 8101 of these went unfilled.

A total of 24,336 PO1s competed for 7999 P-1 awards. Of these, 6774 were granted and 1225 remained unfilled. The situation was similar for CPOs: 16,365 chiefs competed for 4774 pro pay allocations, 4475 were granted and 299 went unfilled.

Although 15,869 P-1 allocations were not utilized, all quotas for the outstanding effectiveness ratings

were filled. The unfilled quotas were mainly in the lower pay grades of the critical ratings where insufficient numbers of personnel took the examinations.

Most of the pro pay recommendations for the November exams were in pay grades E-6 and E-7, yet 70 per cent of the P-1 awards were allocated to personnel in pay grades E-4 and E-5.

Table One shows the number of pro pay awards that were allocated for fiscal year 1960 by rate, and the actual number of men who were authorized to receive pro pay as a result of the November 1959 exams. Those granted the P-1 awards began receiving the \$30 monthly payments as of 16 Jan 1960. Personnel in pay grades E-4 and E-5 will get this extra compensation for 12 months—until 15 Jan 1961. Those in pay grades E-6 and E-7 will receive the additional \$30 per month until 15 Jul 1961. The difference in the length of time between the two groups was set in an effort to establish proper examination phasing for E-6 and E-7 personnel.

Personnel in pay grades E-6 and

E-7 who are recommended for pro pay in Fiscal Year 1961 will be examined on Tuesday, 3 May 1960, and personnel in pay grades E-4 and E-5 will be examined just two days later, on Thursday, 5 May.

Here's a breakdown of the proposed proficiency pay allocations for Fiscal Year 1961:

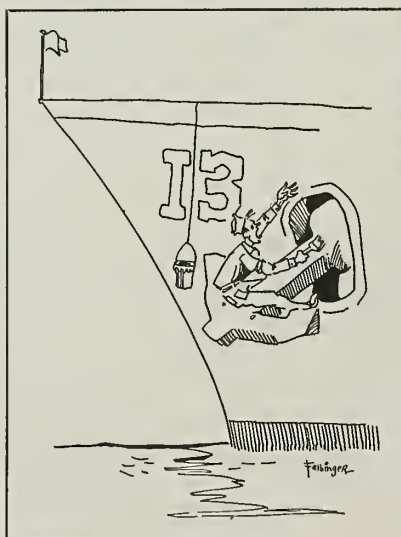
E-4	18,748
E-5	18,036
E-6	10,867
E-7	5,870

These figures indicate the maximum number of men who may draw proficiency pay during the next fiscal year. They should not be interpreted to mean that an additional 53,521 men will be granted proficiency pay as a result of the forthcoming exams. What these figures actually mean, is that the Navy is authorized to pay proficiency pay to a total of 53,521 men, broken down by pay grades as shown above, during the coming fiscal year. Thus, these totals include the 25,767 awards granted as a result of the November exams.

Table Two shows the Navy's approximate petty officer strength, the current critical ratings for FY61 and a breakdown of the proposed pro pay allocations for FY 1961. By comparing the number of awards allocated in this table with the number of P-1 payments authorized as a result of the November 1959 exams, as shown in the right hand column on Table One, you will be able to determine approximately how many pro pay awards will be granted as result of the May exams.

As an example, take the ET rating, which is one of the critical ratings. You'll see in Table One that 1295 persons in that rating were awarded pro pay as a result of the November exams. According to Table Two, a total of 4759 pro pay awards are anticipated for ETs in fiscal year 1961. Thus, by subtracting the 1295 awards that already have been granted, from 4759 (the maximum number of ETs permitted to draw pro pay for the next fiscal year) you'll come up with 3464. This is

All Navy Cartoon Contest
Leo J. Felbinger SN, USN



"Let go forward"

the total number of pro pay awards that can be awarded to ETs as a result of the May exams. (Remember, that the biggest share of these awards will go to second and third class petty officers.) Additional awards may also be made to compensate for personnel that have been discharged or had their pro pay revoked.

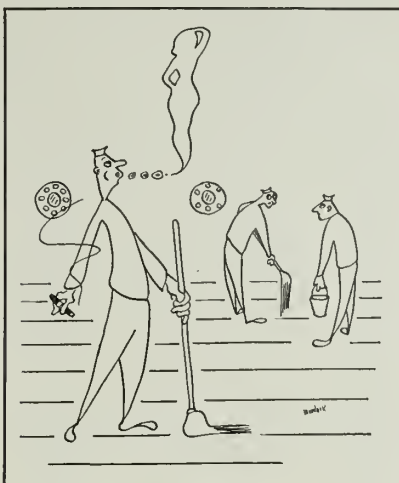
You can apply this same procedure to all other ratings. In some cases, however, you will notice that the authorized figures in Table One are larger than the allocations for FY61 in Table Two. In these instances, the only awards that will be granted during the next fiscal year will be to fill any vacancies created by personnel leaving the service or by proficiency pay revocations.

It must be stressed that 70 per cent of all pro pay awards will go to second and third class petty officers serving in the 40 critical ratings; 15 per cent to those in pay grades E-6 and E-7 of the critical ratings, and the remaining 15 per cent to recruiters and personnel in all pay grades of the 23 outstanding effectiveness ratings.

The *critical ratings*, indicated in Tables One and Two by an asterisk (*), are defined for pro pay purposes, as rates (pay grade E-4 through E-7) which:

- Require long periods of spe-

All Navy Cartoon Contest L. Murdock, SMSN, USN



cialized formal schooling or in-service training.

- Require special technical or leadership aptitudes.
- Have a first term reenlistment rate which is insufficient to maintain the strength of the rating at or near the rating requirements.
- Have a shortage of career petty officers as related to requirements.

It should be noted that the critical ratings are not the same for FY61 as they were for the last examining period. Ratings declared critical for FY61 that were not on the FY60 list include MN and AB; while GF,

PH, DT, MA and AM were included in last year's list, but are not among the critical ratings for FY61.

The *outstanding effectiveness rates* (E-4 through E-7) are those rates which do not meet the criteria mentioned for the critical ratings.

Career personnel who pass the pro pay examinations will be first in line to receive the pro pay awards. The remaining allocations will go to the non-career personnel who pass the exams and come within the set allocations. (For the purpose of pro pay, *career personnel* are those who have served, or are obligated to serve seven years' active duty.)

Personnel being recommended for proficiency pay should be evaluated with personnel in the same rating and pay grade. It is considered that the understandable tendency to evaluate second and third class POs with senior petty officers, in terms of results achieved, may contribute to the insufficient number of recommendations at the second and third class level.

To be eligible for proficiency pay, you must be serving in a billet requiring the technical skill of your rate, or special skill when that skill has been designated as eligible for pro pay, and:

- Be recommended by your commanding officer.
- Be serving in pay grade E-4 through E-7. (Master and Senior

TABLE ONE

Here's a breakdown of the number of pro pay awards that were allocated for Fiscal Year 1960 and the actual number awarded as a result of the No-

vember 1960 exams. The asterisk (*) denotes critical ratings. For an idea of what your chances are in the coming exam—turn to the next page.

QUOTA NO. WHO			QUOTA NO. WHO			QUOTA NO. WHO			QUOTA NO. WHO		
RATE	ORIGINALLY AUTHORIZED	RECEIVED PRO PAY	RATE	ORIGINALLY AUTHORIZED	RECEIVED PRO PAY	RATE	ORIGINALLY AUTHORIZED	RECEIVED PRO PAY	RATE	ORIGINALLY AUTHORIZED	RECEIVED PRO PAY
AB	128	125	CS	476	476	*IM	39	32	*QM	574	507
*AC	429	423	*CT	869	869	*JO	134	58	*RD	3413	792
AD	923	921	DC	154	154	*LI	70	69	*RM	3795	1478
*AE	1076	1069	DK	94	94	*MA	119	119	SD	319	306
*AG	474	261	*DM	75	65	*ML	28	17	*SF	994	661
AK	123	123	*DT	209	207	*MM	2907	1400	SH	213	213
*AM	1475	1475	*EM	2224	1399	MN	31	31	SK	381	381
AO	220	219	EN	510	510	*MR	431	239	*SM	553	376
*AQ	333	328	EO	69	69	*MU	301	102	*SO	1747	585
*AT	2957	1917	*ET	2932	1295	*NW	229	146	*SV	50	10
BM	642	640	*FT	2103	766	*OM	74	29	*SW	61	46
*BR	61	23	*GF	102	102	*PH	261	261	*TD	284	282
*BT	1260	713	GM	384	384	*PM	36	10	*TM	386	375
*BU	364	173	*GS	340	132	PN	219	219	*UT	102	89
*CE	132	65	HM	629	629	PR	67	67	YN	608	608
CM	44	44	*IC	1260	482	*PT	29	18	Recruiters	87	87

TABLE TWO

Asterisk (*) denotes critical ratings.

PROPOSED PRO PAY			PROPOSED PRO PAY			PROPOSED PRO PAY			PROPOSED PRO PAY		
APPROX. ALLOCA- TION		RATE	APPROX. ALLOCA- TION		RATE	APPROX. ALLOCA- TION		RATE	APPROX. ALLOCA- TION		RATE
OFFICER	FOR FISCAL		OFFICER	FOR FISCAL		OFFICER	FOR FISCAL		OFFICER	FOR FISCAL	
STRENGTH	YEAR 1961		STRENGTH	YEAR 1961		STRENGTH	YEAR 1961		STRENGTH	YEAR 1961	
*AB	3200	632	CS	11,000	569	*IM	300	48	*QM	4150	1421
*AC	3200	467	*CT	4700	1140	*JO	500	201	*RD	5700	3288
AD	20,000	708	DC	3500	153	*LI	450	67	*RM	12,200	6233
*AE	6750	1084	DK	2200	130	MA	1000	62	SD	7200	94
*AG	1800	512	*DM	600	148	*ML	200	9	*SF	7100	993
AK	3100	177	DT	2100	123	*MM	14,200	4316	SH	4900	258
AM	11,000	693	*EM	11,300	2634	*MN	700	119	SK	8900	539
*AO	4900	244	EN	12,000	716	*MR	2100	546	*SM	3500	1830
AQ	1700	525	EO	1700	101	*MU	975	408	*SO	3300	1906
*AT	10,500	4217	*ET	8500	4759	*NW	800	309	*SV	150	48
BM	14,600	584	*FT	5700	993	*OM	225	132	*SW	500	81
*BR	175	74	GF	650	45	PH	2400	144	*TD	1600	490
*BT	9700	1711	GM	8500	517	*PM	135	43	*TM	3500	1123
*BU	1500	286	*GS	950	441	PN	5400	311	*UT	800	130
*CE	850	193	HM	14,900	807	PR	1400	90	YN	13,000	804
CM	950	59	*IC	3550	1892	*PT	125	44	Recruiters	2000	100

Chief Petty Officers and non-rated men are not eligible for pro pay.)

- Have a minimum of six months' continuous active service immediately before the final eligibility date established for the proficiency examination in which participating. (The terminal eligibility date for the May exams is 16 Jul 1960.)

- Pass the Navy-wide proficiency examination with a sufficiently high score, so that, together with your performance factor you will have a pro pay multiple sufficiently high to place you within the pro pay allocations for your rate or skill.

Personnel who were awarded pro pay as a result of the November 1959 examinations *should not* be recommended to participate in the May 1960 examinations.

Commands should submit a completed NavPers 624 to the Naval Examining Center, Great Lakes, Ill., on or before 1 Apr 1960, for all persons being recommended to take the pro pay exams in May. Details of the forthcoming pro pay exams and procedures to be followed were announced in BuPers Notice 1418.

List of New and Discontinued Navy Correspondence Courses

Two new correspondence courses are now available, and seven others have been discontinued by the Correspondence Course Center.

Enlisted Correspondence Courses for active duty personnel will be

administered (with certain exceptions) by your local command.

Your division officer will advise you if courses are suitable to your rate and training program. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center.

Personnel on inactive duty will have courses handled by the Center.

NEW COURSES

Title	NavPers Number
Photographer's Mate 2	91493
Electronics Administration and Supply, Officers	10926-A
(These courses may be taken for repeat Naval Reserve credit.)	

DISCONTINUED COURSES

Title	NavPers Number
Aircraft Welding	91617-C
Aircraft Hydraulics	91624-B
Aircraft Instruments	91627-1B
Aircraft Fuel Systems	91630-1B
Aircraft Propellers	91631-1D
Aviation Storekeeper, Vol. I	91651-1C
Aviation Storekeeper, Vol. II	91652-B

ANSWERS TO QUIZ AWEIGH

1. (a) CVHA. This is an amphibious ship.
 2. (c) Escort Vessel.
 3. (b) Patrol Vessel. (Bet you thought it was a warship.)
 4. (c) Minesweeping Boat.
 5. (c) Service craft. (Stumped again?)
 6. (a) AP.
 7. (b) "T."
- Quiz Aweigh is on page 43.

Latest List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases.

Girl's Town (1439); Melodrama: Mamie Van Doran, Mel Torme.

A Dog's Best Friend (1440); Western: Bill Williams, Marcia Henderson.

Cast a Long Shadow (1441); Western: Audie Murphy.

4-D Man (1442); Melodrama: Robert Lansing, Lee Meriwether.

Hound Dog Man (1443) (C) (WS); Melodrama: Fabian, Carol Lynley.

The House of the Seven Hawks (1444); Melodrama: Robert Taylor, Nicole Maurey.

The Crimson Kimono (1445); Drama: Victoria Shaw, Glenn Corbett.

The Mouse That Roared (1446); (C); Comedy: Peter Sellers, Jean Seberg.

Operation Petticoat (1447) (C); Comedy: Cary Grant, Tony Curtis.

A Summer Place (1448) (C); Drama: Richard Egan, Dorothy McGuire.

Mission of Danger (1449) (C); Melodrama: Keith Larsen.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 69—Announced approval by the President of the reports of selection boards which recommended staff corps officers for promotion to the grade of lieutenant commander, Medical Corps; Dental Corps; Nurse Corps; Medical Service Corps; Supply Corps; Chaplain Corps; Civil Engineer Corps; and lieutenant, Civil Engineer Corps; Chaplain Corps; Supply Corps; Nurse Corps and Medical Service Corps.

No. 70—Announced that selection boards to recommend USN and USNR warrant officers for promotion in Fiscal Year 1961 will convene in May.

No. 1 (1960)—Announced extension of NavComp Inst. 7220.16A to 1 Oct 1959.

Instructions

No. 1080.45—Tells how to use the enlisted personnel diary system to order certain adjustments to the enlisted military pay record.

No. 1120.13A—Describes the need and opportunity for career officers from NROTC and Reserve program sources.

No. 1210.10—Sets forth general procedures whereby officers of the line, restricted in the performance of duties, may apply for redesignation to line, unrestricted in the performance of duties.

No. 1301.34—Introduces the Officer Data Card (NavPers 2626) and provides instructions for the verification of the ODC and submission of corrective information.

No. 1540.39—Describes the plans for functional-type training for Limited Duty Officers.

No. 1800.1A—Discusses policy and procedures governing temporary officers of the grades of ensign and above who have or will have twice failed of selection for temporary promotion to the next higher grade.

No. 4600.1A—Describes a revision to the established system of estimating personnel travel costs resulting from the changes of home ports and home yards of ships and permanent duty stations of aviation and certain miscellaneous units.

Notices

No. 1520 (30 December)—Requested applications for Navy sponsorship

in the December 1960 annual competition for Rhodes Scholarship.

No. 1910 (30 December)—Modified instructions concerning Reserve obligations to be given enlisted men upon release from active duty and return or transfer to Ready Reserve.

No. 1306 (31 December)—Announced the sea-tour commencement cut-off dates to establish the eligibility of enlisted personnel for Seavey segment two.

No. 1531 (13 January)—Requested nomination of candidates for assignment to the U. S. Naval Preparatory School, Bainbridge, Md.

WHAT'S IN A NAME

Albemarle

Albemarle is a distinctive name, and one that is known throughout the world.

In the United States there is a city of Albemarle and an Albemarle Sound in North Carolina, an Albemarle, La., Albemarle and Albemarle Point, S. C., and a county of Albemarle in Virginia.

In Ecuador there is an Albemarle Point, and in the Pacific Ocean there is an island in the Galapagos Island group named Albemarle. It is located about 650 miles due west of Ecuador.

Albemarle, in the United States Navy, is a ship. Currently it is *uss Albemarle* (AV 5), home-based at Norfolk, Va. She is named for Albemarle Sound, N. C.

The first Albemarle was a schooner which was captured off Pantego Creek, N. C., on 25 Mar 1862. This ship was purchased by the U. S. Navy from the New York Prize Court in May 1863.

The schooner was used as a supply ship in the North Atlantic Blockading Squadron. She was sold in October 1865.

The second Albemarle was a Confederate ironclad steamer, which was built at Edwards Ferry, N. C., and commissioned in the Confederate States Navy in April 1864.

Her first battle was against Union forces off Plymouth, N. C., during that same month. She sank the Union ship *Southfield* by ramming and then disabled *Miami*. The next day Plymouth fell to the Confederates.

The following month Albemarle, together with *css Bombshell*, again tangled with the Union naval forces. This time the two ships were surrounded by nine northern ships. After a three-hour battle, *Bombshell* was captured. Albemarle disabled one Union ship and damaged several others before she escaped back to Plymouth for repairs.

In October 1864, Union Lieutenant W. B. Cushing went up the Roanoke River in a torpedo boat and sank Albemarle.

After the Union recaptured Plymouth, Albemarle was raised and towed to Norfolk, Va. She was purchased by the U. S. Navy in 1865 and placed in service. She was sold in 1867.

The third and current *uss Albemarle* (AV 5) was launched in 1940. On 20 December of that year, the ship was commissioned and assigned to the Atlantic Fleet. During 1941 she acted as advance base tender for seaplanes at Argentina, Newfoundland.

Then, until July 1945, she transported aeronautical cargo and personnel to Iceland, England, North Africa, Bermuda, and the islands of the Caribbean.

After World War II, she was reassigned to the Pacific Fleet and used as a troop ship to get U. S. troops home. Routine assignments in both Fleets followed until August 1950 when the ship was placed in the Reserve Fleet at New York.

In February 1956, Albemarle was moved to the Philadelphia Naval Shipyard for modernization. She was recommissioned on 21 Oct 1957, and is currently operating in the Atlantic Fleet.



Pointers On How to File Your Federal Income Tax Returns

IF YOU HAVEN'T yet submitted your income tax returns for 1959, you'd better pull yourself together and get at it. By the time you read this, the 15 April deadline will be rounding that last corner.

Maybe you're one of the early birds who have already sent in their returns. However, if you haven't, the information below will be of some help to you. If this summary doesn't cover any of the problems that have been delaying you, a copy of *Federal Income Tax Information For Service Personnel, 1960 Edition*, issued by the Office of the Judge Advocate General, should clear the air. You'll find a copy in your Disbursing Office or Legal Assistance Office. You'll find personal help there, too.

A few changes have been made since the earlier roundup of Federal income tax information appeared in the March 1958 issue of ALL HANDS.

Here's a brief summary of these changes:

Travel Allowances and Expenses—Unless you made money while traveling for the Navy, or want to claim excess expenses, you will no longer be required to report mileage and per diem allowances—all you need to do is answer "yes" to the questions on page one of form 1040 or 1040W or check the appropriate box on form 1040A. You should continue to keep a record of allowances and expenses, however, so that you will know where you stand at the end of the year.

Educational Expenses—If you are attending night school the amount paid by you for tuition and books is deductible on page two of the income tax return form 1040 if the education is undertaken primarily for the purpose of maintaining or improving present skills, or meeting express requirements of your employer. Expenses are not deductible, however, where education is undertaken primarily for advancement, new position, or fulfilling educational aspirations.

Disability retired pay "sick pay" exclusion—Members retired for physical disability resulting from active service may exclude up to \$100 per week of the portion of their retired pay not otherwise excluded on the

basis of percentage of disability until they reach retirement age. For this purpose, retirement age has been defined as the time when service would have been completed had a member continued on active duty, or age as indicated below:

Enlisted—30 years service regardless of age.

Warrant Officers, Men—30 years service or age 62 with 20 years

service, whichever is earlier.

Warrant Officers, Women—30 years service or age 55 with 20 years service, whichever is earlier.

Commissioned Officers, Men—40 years service or age 62, whichever is earlier.

Commissioned Officers, Nurses—30 years service or age 55, whichever is earlier, for LCDRs and above at time of retirement for disability; 20 years service or age 50, whichever is later, for below LCDR at time of retirement for disability.

Commissioned Officers, Others, Women—30 years service or age 55, whichever is earlier, for CDRs and above, at time of retirement for disability; age 50 for below CDR.

Further technical details may be found in paragraph 19(a) and 19(n) of the 1960 edition of the JAG pamphlet.

Form 1040A—The income ceiling on the use of form 1040A has been doubled—it may be used to report income of less than \$10,000 consisting entirely of wages reported on forms W-2 and not more than \$200 total of dividends, interest and other wages not subject to withholding. You may figure your own tax on income under \$5000, or have the Internal Revenue Service compute it, but you must figure your own tax on income of \$5000 or over. When you figure the tax you must pay the balance due when filing the return.

Form 1040W—Form 1040W is a new form which may be used by taxpayers whose income consists of salary and wages, regardless of amounts, and not more than \$200 in dividends and interest. If you have other items of income, you must file on the form 1040. Form 1040W is a streamlined version of form 1040 for taxpayers who cannot use form 1040A because they itemize deductions, claim the sick pay exclusion, have \$10,000 or over of income, claim credit for estimated tax payments, or claim other deductions, exclusions and credits not available on form 1040A.

Waiver of Retired Pay—Reservists, as well as Regular retired members, may now waive retired pay in favor of a nontaxable VA payment.

Exemptions—A taxpayer may claim

Assistant SecNav Jackson Discusses Moral Leadership

The following thoughts on Moral Leadership were recently expressed by the Honorable Richard Jackson, Assistant Secretary of the Navy (Personnel and Reserve Forces):

"I have been asked why we often say Moral Leadership where others expect us to say Command Leadership, Military Leadership, or Managerial Leadership.

"All these types of leadership can be very effective, but they can work for evil, in the hands of evil men, as they can work for decency and justice in the hands of good men.

"The difference between the two kinds of leader lies in the fact that one type is moved by ruthless, selfish and deceitful desires to aggrandize himself and his lieutenants at the expense of all mankind outside of his group of followers. Members of the latter group, on the other hand, use their leadership qualities to move men toward a greater sense of responsibility, honor, dignity and self-respect, to the end that, for all men, the world might be a better place to live in.

"Leadership—Naval Leadership—is nothing, therefore, unless it be Moral Leadership, and only by stressing this most important attribute of leadership can we make all hands aware that leadership has high and noble objectives toward which all may strive, and in the striving, make the Navy a better instrument to accomplish the aims of our nation's policy."

deduction for the exemption of a wife (or husband) only as a spouse, and not also as a dependent member of his household. No dependency exemption is allowed for a person living with the taxpayer where the relationship between them is in violation of local law. Exemption for an adopted nonresident alien child may be claimed if, for the taxable year, he resides in a citizen taxpayer's home as a member of his household.

Medical and Dental Expenses—

Under a new special rule, the maximum deduction for medical expenses has been increased to \$15,000 on a separate return for a disabled taxpayer 65 or older, or his disabled spouse 65 or older who does not file a separate return, and to \$30,000 if both are disabled, 65 or older, and file a joint return. The maximum expense to be taken into account for each is limited to \$15,000. The regular limitations apply to the allowable expenses of a dependent or a nonqualifying spouse. Proof of disability is required.

"Hump Act" Payments—The lump-sum payment of \$2000 received by Navy and Marine officers not recommended for continuation on the active duty list under the so-called "Hump Act" must be included in full in the gross income for the year in which the payment was received.

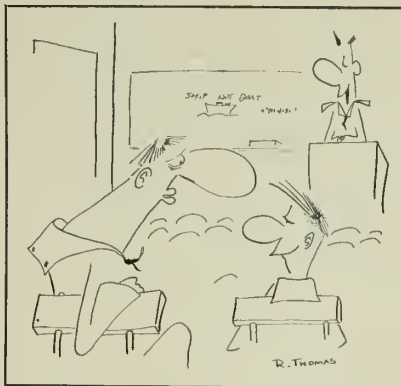
Adopted Children—Now you may claim the exemption deduction for a child placed with you by an authorized placement agency for legal adoption (not for temporary custody) if the child is a member of your household. The former requirement that the child be a member of your household for an entire year has been removed.

Alimony and Separate Maintenance

—Payments made under a decree of divorce or separate maintenance by a husband to his wife or former wife, which are to be paid over a period of less than 10 years, but which are subject to the contingency of the death of either spouse, the remarriage of the former wife, or a change in economic status of either spouse, qualify as periodic payments provided the payments are in the nature of alimony or an allowance for support.

Such payments are included in the gross income of the wife and are

All Navy Cartoon Contest Ronald W. Thomas, SA, USN



"That guy is all sail and no anchor."

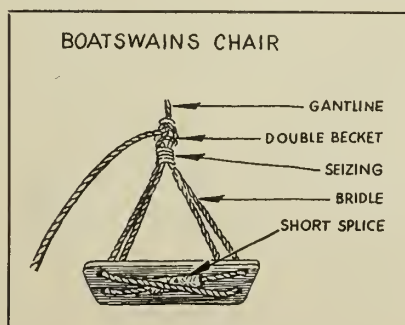
deductible by the husband. This is a departure from the former rule that installments of lump-sum payments must be payable for more than 10 years.

SO MUCH FOR the new material. Here are the main points you should know to file a correct return. It is followed by a schedule of tax withholdings based on your monthly income and number of exemptions claimed.

- **Address** — Be sure that your complete mailing address is on the return. It is most important that you furnish your name, rank or rating, branch of service, service serial number, and your permanent home address if you have one. If you have none and the ship is your only home, your address must include the name of the ship as well as the number. If you are based at an overseas shore station, your address must include the name of the station and Navy number.

- **Who Must File** — Practically every individual citizen, single or married (including minors), whose

Grains of Salt—



gross income is \$600 or more must file. There are certain exceptions based on old age and self-employment; these may be found in the JAG pamphlet.

- **When to File**—Income tax returns based on the calendar year must be filed on or before 15 April. However, if you are living or traveling outside the U. S., you have until 15 June to file your return (but you will be charged interest on the unpaid tax). In addition, the Director of Internal Revenue for the district in which you normally file your returns may upon application on form 2688 grant an extension of as much as six months (more if you are abroad).

- **How to Prepare Returns**—Broadly speaking, your income tax is based upon your "gross income" minus "business expenses" and "allowable deductions" (including personal exemptions), multiplied by the tax rates and minus "credits." In other words, certain specified expenses are subtracted from gross income to find "adjusted gross income"; deductions are subtracted from adjusted gross income to find "taxable" income; and the appropriate tax rate is applied to the taxable income to find the amount of tax you owe. Credits for the taxes withheld by your disbursing officer, payments on estimated tax—or for retirement income credit and so forth—are then subtracted from the tax you owe. If the total amount withheld is smaller than the amount you owe, you must pay the difference; if the amount withheld is larger than the amount of your tax—you'll get a refund.

Income That Must Be Reported

- **Gross Income** — This includes gains, profits and income derived from salaries, wages, or compensation for personal service—in short, money received from almost any source. The following items from naval sources, to the extent that they are not reduced by allowable "business expenses," should be reported as "gross income":

- Active duty pay including incentive and special pay such as "sea pay" and flight skins."

- Retired pay if retired for other than physical disability resulting from active service.

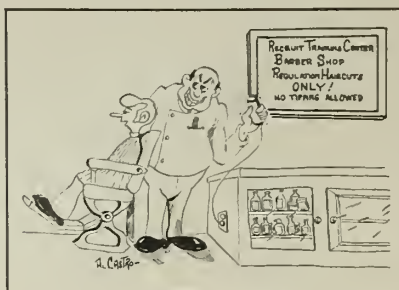
- Retainer pay of enlisted members transferred to the Fleet Reserve.
- Retired pay of enlisted members transferred to the retired list for other than physical disability resulting from active service.
- Pay of all midshipmen and NavCads, and retainer pay of \$50 and \$100 per month for NROTC and Naval Aviation College Program enrollees.
- Compensation for employment in officers' clubs, messes, station theatres, etc.
- Interest on Navy Savings Deposits and on Armed Forces Leave Bonds or leave payments.
- Lump sum payment received by officers upon honorable discharge or complete separation other than disability severance pay.
- Lump sum payment of \$2,000 to officers retired because not recommended for continuation on the active list under the "Hump Act" (Public Law 86-155).
- Mileage or per diem in excess of expenses.

Navy Income That Need Not Be Reported

The following items received from the Navy are excluded from "gross income" and need not be reported:

- Basic allowance for quarters, including cash difference for inadequate quarters, heat and light furnished in kind.
- Basic allowance for subsistence.
- Cost to government for transportation of dependents and household goods.
- Rations furnished in kind to enlisted men.
- Uniform gratuity or clothing allowance for officer and enlisted.
- Retired pay of persons retired before 1 Oct 1949 for physical disability resulting from active service and who are receiving pay under laws in effect before 1 Oct 1949.
- Disability severance pay and disability retired pay computed on percentage of disability, received for separation or retirement after 30 Sep 1949 under the Career Compensation Act of 1949.
- Uniforms furnished in kind to enlisted men.
- Death gratuities.
- Personal money allowances received by fleet admirals, admirals and vice admirals.

All Navy Cartoon Contest Alfred B. Castro, SA, USN



"Just a trim, please."

- Money received by naval attaches for entertaining and exceptional purposes, if expended solely in connection with official duties.
- Mustering out pay.
- State bonus payments for services rendered to the United States.
- Amounts paid to or on behalf of veterans under the WW II and Korean GI Bills.

Deductible Items

Adjusted Gross Income—Deducting any applicable items in the following list from your gross income

Naval Fighting Ships

The first book of a multi-volume **Dictionary of American Naval Fighting Ships** has been published by the Office of the Chief of Naval Operations. The series will cover the 10,000 plus Navy ships that have served the United States.

Research for, and production of the series is a project of the Naval History Division. The listing for each ship in the alphabetically arranged dictionary includes, where known, the characteristics of the ship, plus historical data covering the ship's career.

Volume one, covering ships having names beginning with the letters A and B, also includes appendices on all battleships, cruisers, submarines (including tenders and rescue vessels), torpedo boats, destroyers and escort vessels. The book, which is priced at \$3.00, is for sale by the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

will give you your "adjusted gross income." The following are deductible items.

- Mess bills afloat—An officer with or without dependents who is assigned permanent duty afloat, may deduct mess bills for any periods during which his ship is away from its home port for longer than an ordinary work day. The same principle applies to air personnel away from a squadron's home base.
- Travel expense—The excess expenses may be deducted if you are traveling in a mileage or per diem status. Form 2106 may be used for this purpose.
- Transportation expenses may be deducted by Reserve personnel if incurred while performing authorized drills under competent orders, even if they do not receive reimbursement for such travel.
- Expenses attributable to rents and royalties are deductible.
- Losses from sale or exchange of business property are deductible items in computing taxable income.
- Deductions from adjusted gross income—Once you have found your adjusted gross income you may make deductions for the following items to which you are entitled. You do this only if you are filing the long form (Form 1040) in which you itemize your deductions. If you are filing the Short Form 1040 or 1040A you will receive a standard and automatic deduction of about 10 percent of the adjusted gross income.
- Contributions paid during the taxable year for exclusive public use (churches, United Givers Fund, Red Cross, Navy Relief, USO, etc.).
- Interest on personal indebtedness, such as mortgage on real estate or, under certain circumstances and to a limited extent, carrying charges on installment purchases of personal property.
- As a general rule, state and local taxes are deductible by the person upon whom they are imposed by law. However, federal excise taxes (luxury taxes), federal income and certain foreign taxes are not deductible.
- During periods of illness or hospitalization you may (under certain circumstances) be entitled to deduct your pay (up to a total of \$100 weekly). To support a claim for this exclusion, however, you

should furnish a statement from the attending physician, the hospital, the employer, or other acceptable evidence of absence, illness, and rate of payment. You may not deduct the first seven calendar days of such a period unless the absence is a result of injury or you are hospitalized at least one day.

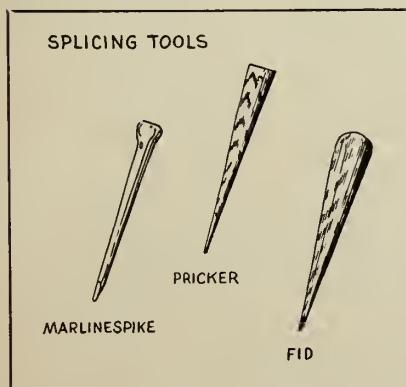
- Child care, a deduction limited to \$600, is allowed working women or widowers, as well as men who are legally separated or divorced, for the expense of caring for certain of their dependents in order that the taxpayer may be gainfully employed. A married woman may claim the deduction only if she files a joint return with her husband. Then the \$600 is reduced by the amount of their joint income over \$4500.

- Losses. For example, a loss occasioned by damage to your own automobile is deductible to the extent that it is not covered by insurance, unless it is the result of a willful negligence on your part.

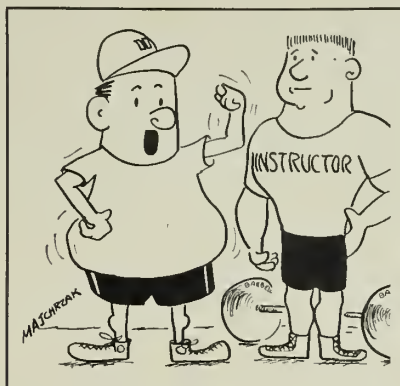
- Miscellaneous deductible items include uniform equipment (insignia of rank, corps, etc.); amount of reenlistment bonus refunded by reason of termination of enlistment; alimony payments, if included in the wife's gross income; dues to professional societies, etc.

Items which are not deductible from your adjusted gross income include: Personal living or family expenses other than the exceptions noted above; cost of moving and shipping household goods; cost of transportation of dependents; premiums paid on life insurance policies; expenses of visiting home while on furlough, leave or liberty; and amounts paid for U. S. Savings Bonds.

Grains of Salt—



David J. Majchrzak, DN, USN



"I'd just like to tighten up my muscles."

Your Exemptions

Exemptions for you and your dependents are treated as deductions from adjusted gross income in arriving at "taxable income." The amount of exemption allowed for each dependent is \$600 and exemptions are allowed for the following:

- You, the taxpayer.
- Your spouse.
- Each "dependent." You can claim credit only for persons who meet all of the dependency requirements listed on the instructions accompanying Forms 1040, 1040W and 1040A.

An individual receiving support from two or more persons, none of whom furnishes more than half, may be claimed as a dependent under certain circumstances. The conditions are listed in the tax instructions.

Citizens of foreign countries will not qualify as dependents unless they are residents of either the U. S., Canada, Mexico, Canal Zone or the Republic of Panama.

A child born or legally adopted in the Philippine Islands before 1 Jan 1956 may be claimed as your dependent if you were a member of the U. S. armed forces at the time the child was born or adopted, and providing the child is a resident of the Philippine Islands during the taxable year.

A last word of warning! If you have not already filed your return for 1959, get busy. There are penalties (some severe) for not filing and if you do not send in your return you will not collect any refund which may be due you.

Open Rates Listed for Reservists Requesting Transfer to Regular Navy

Enlisted Naval Reservists serving on active duty now have the opportunity to go regular in more than 100 different rates.

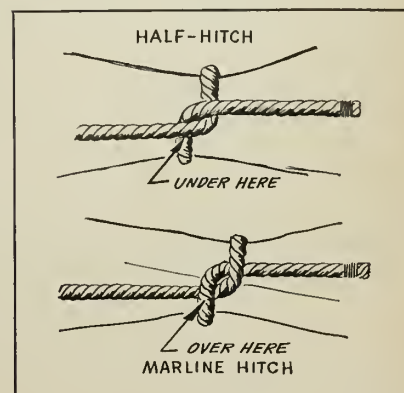
A recent change to BuPers Inst. 1130.4F, which details procedures for Naval Reserve personnel serving on active duty to enlist in the Regular Navy, brought up to date the list of rates open to Reservists.

Change three to BuPers Inst. 1130.4F announced that 26 additional rates were now open, while 16 others were deleted. All but four of the deletions were general apprenticeships in pay grades E-1, E-2 and E-3.

The following rates are the open rates in which active duty Reservists may enlist in the Regular Navy at the expiration of their active duty obligation:

QM2, 3	MR1, 2
SMC, 1, 2, 3	BT2, 3
RD1, 2, 3	BRC, 1
SOC, 1, 2, 3	EM1, 2, 3
TM2, 3	ICC, 1, 2, 3
GS2, 3	SF3
FT2, 3	SVC, 1, 2, 3
NW2, 3	CEC
MN3	BU2, 3
ETC, 1, 2, 3	SW2, 3
OM2, 3	AD3
CT1, 2, 3	AT1, 2, 3
YN3	AQ3
MA2, 3	AC3
SK3	PR2, 3
RM1, 2, 3	AG1, 2, 3
JOC, 1, 2, 3	TD3
DM1, 2	PTC, 1, 2, 3
MUC, 1, 2, 3	AN, AA, AR
MM1, 2, 3	SN, SA, SR
EN2, 3	TN, TA, TR

Grains of Salt—



Roundup of State Income Tax Laws and Rules for Servicemen

IF YOU'VE READ the preceding pages, you are now more familiar with the regulations pertaining to federal income taxes, particularly as they apply to the Navymen on active duty. It should be of help in understanding your rights and liabilities under federal income tax laws.

At the same time, certain states, territories and possessions of the United States also have their own income tax laws under which you may have liabilities in addition to the federal income tax. Below, you will find a summary of the requirements of the local income tax laws, as prepared by the Office of the Judge Advocate General. It replaces the summary presented in the March 1958 issue of ALL HANDS.

You should note, that *unless your state makes a special exception*, members of the armed forces are not excused from state and local income taxes merely because they are on active duty.

Generally speaking, your liability for state and local income and personal property taxes (but not real property taxes such as on your home) is determined on the basis of the laws of your domicile or legal residence, sometimes referred to as your home state or the state of which you are a citizen or inhabitant.

Most state taxes are based on actual residence or presence in the jurisdiction and for this reason the Soldiers' and Sailors' Civil Relief Act is important to you. Although it protects you from taxation by a state of which you are not a resident, it does NOT relieve you from liability for taxes to your home state. There is no exemption by reason of being in the naval or military service unless your home state law provides special benefits for you.

Active service personnel are protected to the extent provided by the Soldiers' and Sailors' Civil Relief Act. This Act provides that, for the purpose of taxation of your individual income and personal property, including your automobile, if you are absent from your place of legal residence or domicile solely by reason of compliance with military or naval orders, you will not be considered to have become a resident of any other state or possession of the United States while so absent.

In this situation your active service pay and personal property are exempt from taxation in the state where you are serving. So is your automobile, if the license, fee, or excise imposed by your home state is paid.

There is no exemption under the

Act from taxation of retired and retiree pay; the income, property, or automobile of your wife; or income from a business, rental property or other source, such as part-time employment, in the state in which you are living by reason of active duty orders.

In many cases, tax authorities have taken the position that a serviceman has abandoned his original domicile when there is a showing that the right to vote in his home state has not been exercised and that a home-state's income taxes, if any, have not been paid.

Because of this, it is much easier to substantiate your domicile in your home state if the required taxes have been paid, your voting privilege has been exercised and other ties to the home state, such as automobile license plates and operator's permit have been kept current.

Below you will find a summary of the salient features of the income tax laws for the calendar year 1959 of the states and possessions of the United States. It primarily indicates the requirements for the filing of income tax returns by servicemen who are residents of jurisdictions having income tax laws; personal exemptions and tax credits allowed; due dates for filing and paying taxes.

SUMMARY OF INCOME-TAX LAWS OF STATES AND POSSESSIONS OF THE UNITED STATES

NOTE: 1. "Married couple" or "married" as used in this summary means husband and wife living together.

2. A married service man or woman is considered to be living with his or her spouse when separated only by reason of military orders.

3. "*" indicates provisions for declaration and payment of estimated taxes.

4. The following states do not impose individual income taxes: CONNECTICUT, FLORIDA, ILLINOIS, MAINE, MICHIGAN, NEBRASKA, NEVADA, NEW JERSEY, OHIO, PENNSYLVANIA, RHODE ISLAND, SOUTH DAKOTA, TEXAS, WASHINGTON, WEST VIRGINIA, and WYOMING.

Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
*ALABAMA:				
Net income of: \$1500 if single, \$3000 if married or head of family.	\$1500 if single, \$3000 if married or head of family, \$300 for each dependent.	Return due 15 April. Payment with return.	State Department of Revenue, Income Tax Division, Montgomery 2, Ala.	Members outside continental United States may defer filing until 30 days after they return to the U. S.
*ALASKA:				
Gross income of \$600 from sources within the states.	\$600 for taxpayer, \$600 for spouse, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind; age 65 or older.	Return due 15 April. Payment with return.	Department of Revenue, Alaska Office Building, Juneau, Alaska.	All active-service pay exempt after 1950. Members may defer paying until six months after discharge if ability to pay is impaired by reason of military or naval service.

Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
ARIZONA:				
Net income of: \$1000 if single, \$2000 if married. Gross income of \$5000.	\$1000 if single, \$2000 if married or head of household, \$600 for each dependent, \$500 additional for taxpayer and spouse if blind.	Return due 15 April. Payment with return or in three equal installments.	Arizona State Tax Commission, Income Tax Division, State House, Phoenix, Ariz.	\$1000 active-service pay is exempt. Members outside continental United States may defer filing and paying, without interest or penalty, until 180 days after release or termination of present emergency, whichever is earlier.
ARKANSAS:				
Gross income of: \$1750 if single or separated from spouse, \$3500 if married or head of family.	Tax credit of: \$17.50 if single, \$35 if married or head of a family, \$6 for each dependent.	Return due 15 May. Payment with return or in two equal installments.	State of Arkansas, Department of Revenue, Little Rock, Ark.	All active-service pay excluded.
CALIFORNIA:				
Net income of: \$1500 if single or head of household, \$3000 if married.	\$1500 if single, \$3000 if married or head of household, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind.	Return due 15 April. Payment with return or, if over \$50, in three installments with first payment not less than \$50.	State of California Franchise Tax Board, 1025 P Street, Sacramento 14, Calif.	\$1000 active service pay and all mustering-out and terminal leave payments received after 1 Jul 1952 are exempt. Filing and paying deferred without penalty or interest until 180 days after return to the U.S. from duty outside continental U.S.
*COLORADO:				
Gross income of \$750.	\$750 for taxpayer, \$750 for spouse, \$750 for each dependent, \$750 additional for taxpayer and spouse if blind; age 65 or older.	Return due 15 April. Payment with return.	State of Colorado, Department of Revenue, State Capitol Annex, Denver 2, Colo.	\$2000 of active or reserve duty pay excluded during war or national emergency; \$1000 during other times. (\$2000 applies in 1959) Returns and payment of tax deferred without penalty or interest until one year after separation.
DELAWARE:				
Gross income of: \$600 if single or separated from spouse, \$1200 combined gross income of married couple.	\$600 for taxpayer, \$600 for spouse, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind; age 65 or older.	Return due 30 April. Payment with return or in installments if tax exceeds \$5.	State of Delaware, State Tax Department, 843 King Street, Wilmington 99, Del.	Deferment for filing and paying may be granted, upon application, until six months after discharge. A domiciliary who maintains no permanent abode in the State, but who maintains one elsewhere, and who spends no more than 30 days of the year within the state, is not a "resident" for income tax purposes.
*DIST. OF COLUMBIA:				
Gross income in excess of: \$1000 if single or separated from spouse, \$2000 combined income of married couple.	\$1000 if single or separated from spouse, \$2000 if married, \$1500 if head of family, \$500 for each dependent, \$500 additional for taxpayer and spouse if blind; age 65 or older.	Return due 15 April. Payment with return.	District of Columbia, Finance Office, Revenue Division, Room 2025, Municipal Center, 300 Indiana Ave., N.W., Washington 1, D. C.	Deferment for filing or paying granted members outside the United States until six months after return to the U. S.

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Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
*GEORGIA:				
Gross income of: \$1500 if single or separated from spouse, \$3000 combined gross income of married couple.	\$1500 if single, \$3000 if married or head of family, \$600 for each dependent, \$600 addi- tional for taxpayer and spouse if blind, age 65 or older.	Return due 15 April. Payment with return or in three equal install- ments if tax exceeds \$30.	Department of Revenue, Income Tax Unit, 502 State Office Bldg., Atlanta 3, Georgia.	Deferment for filing or paying without penalty or interest granted members outside continental U. S. until six months after re- turn to the U. S.
*GUAM:				
Same as Federal.	Same as Federal.	Same as Federal.	Division of Revenue and Taxation, Department of Finance, Government of Guam, Agana, Guam.	Same as Federal, however, as to service compensation, the Government of Guam in practice has not im- posed the Guam income tax on individuals subject to the United States in- come tax.
*HAWAII:				
Gross income of \$400 (\$800 if 65 or older). Any amount from rents or a profession.	\$400 if single, \$400 for spouse, \$400 for each dependent, \$400 addi- tional for taxpayer or spouse if 65, \$5000 in lieu of normal exemption for taxpayer if blind.	Net income tax: Return due 20 April. Payment with return.	State of Hawaii, Department of the Tax Commissioner, P.O. Box 259, Honolulu 9, Hawaii.	All service pay excluded. Members may defer pay- ing, without interest or penalty, until six months after discharge if ability to pay is impaired by reason of service.
IDAHO:				
Gross income of \$600 (\$1200 if 65 or older).	\$600 for taxpayer, \$600 for spouse, \$600 for each dependent, \$600 addi- tional for taxpayer and spouse if blind; age 65 or older.	Return due 15 April. Payment with return or in two equal install- ments.	State of Idaho, Office of Tax Collector, Income Tax Division, State Capitol Building, Boise, Idaho.	Active service pay exempt if serving outside the State for the entire year. If out- side the continental United States may defer filing and paying until six months after discharge.
INDIANA:				
Gross income in excess of \$1000. Joint re- turns not permitted.	\$1000 for each taxpayer.	Return and payment due 31 January; or quarterly if over \$25 any quarter.	Indiana Department of State Revenue, Gross Income Tax Division, 141 South Meridian Street, Indianapolis 13, Ind.	All active service pay is exempt. Returns and pay- ment of tax deferred until six months after discharge or end of hostilities, which- ever is earlier.
IOWA:				
Net income of: \$1500 if single or separated from spouse, \$2350 if married. Gross income of \$2500.	Tax credit of \$15 if sin- gle, \$30 if married or head of family, \$7.50 for each dependent.	Return due 30 April. Payment due with return or in two equal install- ments if tax is \$50 or more.	State Tax Commission, Income Tax Division, State Office Building, Des Moines 19, Iowa.	Same computations as for Federal return.
KANSAS:				
Net income of: \$600 if single or separated from spouse, \$1200 if married. (Plus age and blind exemptions.) Gross income of \$4000.	\$600 for taxpayer, \$600 for spouse, \$600 for each dependent, \$600 addi- tional for taxpayer and spouse if blind; age 65 or older.	Return due 15 April. Payment with return or in two equal installments if tax is more than \$200.	State of Kansas, Department of Revenue, Income Tax Division, State Office Building, Topeka, Kans.	\$1500 active service pay excluded from gross in- come until the termination of the present world crisis as determined by the Exec- utive Council of the State.
*KENTUCKY:				
Gross income of \$700 (\$1400 if 65 or older).	Tax credit of: \$13 for taxpayer, \$13 for spouse, \$13 for each dependent, \$13 additional for tax- payer and spouse if 65 or blind.	Return due 15 April. Payment with return.	Commonwealth of Kentucky, Department of Revenue, Frankfort, Kentucky.	Same computations as for Federal return.

Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
LOUISIANA:				
Net income of: \$2500 if single or separated from spouse, \$5000 if married. Gross income of \$6000 or more.	\$2500 if single, \$5000 if married or head of family, \$400 for each dependent.	Return due 15 May. Payment with return or in three equal installments.	State of Louisiana Department of Revenue, Baton Rouge 1, La.	None.
*MARYLAND:				
Gross income in excess of: \$800 if single, \$1600 if married.	\$800 if single, \$1600 if married, \$800 for each dependent, \$800 additional for taxpayer and spouse if blind; age 65 or older; also for dependents 65 or older.	Return due 15 April. Payment with return.	State of Maryland, Comptroller of the Treasury, Income Tax Division, Annapolis, Md.	\$1500 of active service pay excluded during time of war and prior to cessation of hostilities or while in a combat zone. (No exclusion in 1959.) Members outside continental United States may defer filing until three months after return to the U. S.
*MASSACHUSETTS:				
Earned income of \$2000. Other taxable income in any amount.	\$2000 for taxpayer against earned income, \$500 for spouse having income of \$2000 or less, \$400 for each dependent, \$2000 additional for taxpayer and spouse if blind.	Return due 15 April. Payment with return.	The Commonwealth of Massachusetts, Department of Corporations and Taxation, Income Tax Division, 40 Court Street, Boston 8, Mass.	Policy is to grant deferment for filing to those outside the States until return to the United States or six months after discharge, whichever occurs first.
MINNESOTA:				
Gross income in excess of: \$750 if single, \$1500 if married or head of household, or if combined income of married couple exceeds \$1500.	Tax credit of: \$10 if single; \$10 more if blind, \$30 if married or head of household, \$14 per dependent, \$15 additional for married taxpayer or spouse if blind, age 65 or older.	Return due 15 April. Payment with return or in two equal installments.	State of Minnesota Department of Taxation, Income Tax Division, 156 East 6th Street, St. Paul 1, Minn.	\$3000 active service pay excluded. Members of Armed Forces outside continental U. S. continuously for more than 90 days granted extension of time until six months after return to the U. S.
MISSISSIPPI:				
Net income in excess of personal exemptions. Gross income in excess of \$6000.	\$4000 if single, \$6000 if married or head of family.	Return due 15 April. Payment with return or in four equal installments.	State Tax Commission, Income Tax Division, Box 960. Jackson, Miss.	None.
MISSOURI:				
Gross income of: \$1200 if single, \$2400 if married or head of family.	\$1200 if single, \$2400 if married or head of family, \$400 for each dependent.	Return due 15 April. Payment with return.	State of Missouri, Department of Revenue, Income Tax Dept., P. O. Box 629, Jefferson City, Mo.	\$3000 of active service pay exempt after 1950. Director of Revenue may allow extension of time for filing without penalty or interest until one year after discharge.
*MONTANA:				
Net income of \$600 if single, \$1200 if married or head of family. Gross income of \$1200.	\$600 if single, \$1200 if married or head of family, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind, age 65 or older.	Return due 15 April. Payment with return.	State of Montana, Board of Equalization, State Capitol Building, Helena, Mont.	Filing and paying deferred until six months after discharge in cases of undue hardship caused by military service.
NEW HAMPSHIRE:				
Any amount of taxable interest or dividends. Joint returns not permitted.	\$600 for each tax payer.	Return due 1 May. Payment with return.	State Tax Commission, Interest and Dividends Division, Box 345, Concord, N. H.	None.

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Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
NEW MEXICO:				
Gross income of: \$1500 if single, \$2500 if married.	\$1500 if single, \$2500 if married, \$200 for each dependent.	Return due 15 April. Payment with return or in four equal install- ments.	State of New Mexico, Bureau of Revenue, Income Tax Division, P. O. Box 451, Santa Fe, N. M.	None.
*NEW YORK:				
Combined net income and net capital gain of \$600 (\$1200 if 65 or older). Combined gross income and net capital gain of \$5000.	\$600 for taxpayer, \$600 for spouse, \$600 for each dependent, \$600 addi- tional for taxpayer and spouse if blind, age 65 or older.	Return due 15 April. Payment with return.	State of New York, Department of Taxation and Finance, Income Tax Bureau, Albany 1, N. Y.	Returns deferred for mem- bers continuously hospital- ized outside New York for injury in combat zone until six months after such hos- pitalization. A domiciliary who maintains no perma- nent abode in the State, but who maintains one elsewhere, and who spends no more than 30 days of the year within the State, is not a "resident" for in- come tax purposes.
*NORTH CAROLINA:				
Gross income of: \$1000 if single or a married woman with separate income, \$2000 if a married man. Gross income from business or pro- fession in excess of personal exemption.	\$1000 if single or a mar- ried woman, \$2000 if married man or head of a household, \$2000 if widow or widower with minor child, \$300 for each dependent, \$1000 additional to blind tax- payer.	Return due on or before 15 April. Payment with return or in two equal installments if tax is over \$50; four equal install- ments if tax is more than \$400.	State of North Carolina, Department of Revenue, Individual Income Tax Division, Raleigh, North Carolina.	None.
NORTH DAKOTA:				
Net income of: \$600 if single or separated from spouse, \$1500 if married or head of household. Gross in- come of \$5000.	\$600 if single, \$1500 if married or head of household, \$600 for each dependent, \$600 addi- tional for taxpayer and spouse if blind, age 65 or older.	Return due 15 April. Payment with return or in installments if tax ex- ceeds \$100.	State of North Dakota, Office of Tax Commissioner State Capitol Building, Bismarck, N. D.	All active service pay is exempt. Deferment granted to members of Armed Forces until the 15th day of 6th month following discharge.
OHIO:				
No individual State income tax, but residents of some Ohio cities and municipalities may be liable for local income taxes.				
OKLAHOMA:				
Gross income of: \$1000 if single, \$2000 if married	\$1000 if single, \$2000 if married or head of family, \$500 for each dependent.	Return due 15 April. Payment with return.	Oklahoma Tax Commission, State of Oklahoma, Income Tax Division, Oklahoma City 5, Okla.	\$1500 of active service pay is excluded. Filing and paying by member outside the United States or hos- pitalized in the U. S. de- ferred until 15th day of 3rd month following return or discharge from hospital.
OREGON:				
Net income in excess of personal exemp- tions.	\$600 if single or sep- arated, \$1200 if mar- ried, \$600 for each de- pendent plus \$1 credit for each \$100 of support furnished each, \$600 ad- ditional for taxpayer or spouse if blind plus credits of \$18 if blind and \$12 if age 65.	Return due 15 April. Payment with return or in installments if tax ex- ceeds \$25.	Oregon State Tax Commission, Income Division, 100 State Office Building, Salem, Ore.; or State Tax Commission, 1400 S.W. 5th Avenue, Portland 1, Ore.	\$3000 of active service pay is excluded. Returns and payment of tax de- ferred for 90 days after return to U. S. from period of duty exceeding 90 days outside continental United States.

Amount, or More, of Income Which Requires Resident to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
PENNSYLVANIA:				
No individual income tax, but residents of some Pennsylvania cities and municipalities may be liable for local income taxes. Philadelphia exempts all military pay.				
*PUERTO RICO:				
Gross income in excess of: \$800 if single, separated from spouse or if head of family, \$2000 if married and living with spouse.	\$800 if single or separated from spouse, \$2000 if married or head of family, \$400 for each dependent.	Return due 15 April. Payment with return or in two equal installments where no declaration of estimated tax was elected.	Commonwealth of Puerto Rico, Department of the Treasury, Bureau of Income Tax, P. O. Box 9833, Santurce, Puerto Rico.	\$500 qualified special deduction for service in Korean conflict as member: (a) 65th Infantry Reg., or (b) any unit of U. S. Armed Forces, if bona fide resident of Puerto Rico.
SOUTH CAROLINA:				
Net income of: \$1000 if single or separated from spouse, \$1800 net aggregate income of married couple.	\$1000 if single, \$2000 if married or head of a household, \$400 for each dependent.	Return due 15 April. Payment with return or in installments if tax exceeds \$25.	South Carolina Tax Commission, Income Tax Division, Drawer 420, Columbia 1, S. C.	Same computations as for Federal return.
TENNESSEE:				
Income over \$25 from dividends and interest.	None, except income of blind persons is exempt.	Return due 15 April. Payment with return.	State of Tennessee, Department of Finance and Taxation, Income Tax Division, War Memorial Building, Nashville 3, Tenn.	None.
UTAH:				
Gross income of: \$600 if single or separated from spouse, \$1200 if married.	\$600 if single, \$1200 if married, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind.	Return due 15 April. Payment with return.	State Tax Commission of Utah, 118 State Capitol, Salt Lake City 14, Utah.	If in foreign country 510 days of any 18 consecutive months may file as a non-resident for each taxable year while so absent for three months or more.
*VERMONT:				
Gross income of \$500 (\$1000 if 65 or older).	\$500 for taxpayer, \$500 for spouse, \$500 for each dependent, \$500 additional for taxpayer and spouse if blind, age 65 or older.	Return due 15 April. Payment with return.	Commissioner of Taxes, State Tax Department, Montpelier, Vt.	Same as Federal. Members serving an initial enlistment period may defer paying until six months after discharge if ability to pay is materially impaired by active service.
VIRGINIA:				
Gross income of: \$1000.	\$1000 for taxpayer, \$1000 for spouse, \$200 for each dependent plus \$800 to unmarried taxpayer who has a dependent father, mother, son, daughter, sister, or brother, \$600 additional for taxpayer and spouse if blind, age 65 or older.	Return due 1 May. Payment in full, with return, to Treasurer of county or city where return is filed.	Commissioner of Revenue of the county or city of which taxpayer is a resident.	None.
WISCONSIN:				
\$1400 combined net income of married couple. Gross income of \$600.	Tax credit of: \$7 if single, \$14 if married or head of family, \$7 for each dependent.	Return due 15 April. Payment with return or in installments if tax exceeds \$20.	State of Wisconsin, Department of Taxation, Room 1000, State Office Building, Madison 2, Wis., or Assessor of Income for county in which taxpayer resides.	\$1000 of active service or reserve pay excluded. Extension of time for filing granted to members on duty abroad until 15th day of 6th month following close of taxable year.

BOOKS

THEMES RANGE FROM WORLD WAR II TO THE MOON RACE

IF THE PRESENT publishing trend continues, only the Civil War will be able to compete with World War II coverage. Three more titles, one of which is fiction, are among those selected for review this month. Ask for them at your ship or station library.

In *The Liberation of the Philippines*, which is Vol. XIII of the History of U. S. Naval Operations in World War II, Samuel Eliot Morison continues his story of sea warfare with the amphibious operations for the liberation of the Philippines (under which come such names as Mindoro, Lingayen, Palawan, Zamboanga, Panay, Negros, Cebu, Corregidor and Mindanao). These half-forgotten far-off names come to life as Morison tells of the preliminary bombardments, the terrific toll of American lives taken by the Kamikaze Corps, the assaults over the beaches and the land fighting for these islands and for Manila. Of particular interest to Navymen is the chapter on the great typhoon of December 1944, in which three Navy ships went down and more than 800 lives were lost. Other chapters tell the story of the three amphibious assaults on Borneo by Australian troops covered by the U. S. Navy; of submarine operations in the southwest Pacific in 1945; and of Captain Milton Miles' U. S. Naval Group in China which fought the last naval battle of the war with sailing junks.

There were also quite a few Navymen on the beaches of Normandy on D-Day, 6 Jun 1944. Those who lived through that hard, long day can now get an excellent picture of the whole thing in *The Longest Day*, by Cornelius Ryan. Other books have been written on the subject but none have concentrated quite as much on the individual viewpoint of the men—Allies and Germans alike—who did the actual fighting. This one is based on material solicited from veterans—British, American, Canadian, French and German—and civilian survivors, and from German war diaries and Allied reports. The story takes you from the paratroopers, to the gliders, to the bombardments, to the many sections of the landings. On the German side it tells of the growing con-

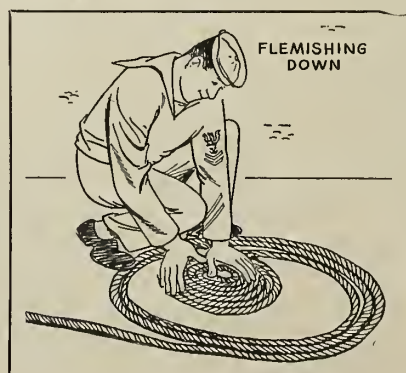
fusion when relayed messages were not believed, impossible orders given and the little that was done was swept beneath the assembled might of the invasion forces. As Ryan says: "I believe I have told the story as it actually happened rather than as the generals or others thought it happened."

Coverage of our present "war" is somewhat different. *War for the Moon*, by Martin Caidin tells the story of the lunar probes of 1958 and 1959, which culminated in the payloads which went past the moon to orbit the sun as history's first artificial planets. The author traces the events of space exploration from the first American planning to the successful United States' launching of the Pioneer IV payload past the moon and into solar orbit in 1959. He discusses the problems that must be overcome before human beings can land on the surface of the moon and what we know of conditions there. *War for the Moon* is an account of one of the most important scientific programs in human history.

Another "war" book is *The Silent War in Tibet* by Lowell Thomas, Jr. This rather informal history of the Communist Chinese infiltration and conquest of this Buddhist mountain stronghold tells an appalling story of brutality and deceit on the part of the communists; loyalty and courage on the part of the Tibetans and the fourteenth Dalai Lama. Intermingled in the political aspects is an interesting account of an interesting people.

One more: *The Soviet Image of Future War*, by Raymond L. Garthoff, is somewhat on the technical side. Here, Dr. Garthoff discusses

Grains of Salt—



some of the most highly significant aspects of Soviet military writing and thinking. In doing so, he analyzes and presents his understanding of the many facets of their strategy. Included in this book are direct translations of some of the latest, highly important Soviet military writings. He discusses the Soviet views of the interrelationship of their economy and war-making capacity. He quotes authoritative sources and his conclusions are sobering. To quote one Soviet writer: "Under equal economic potentials, the military economic potential of the socialist country is greater than that of a capitalist country." The Soviet Union is convinced that it possesses a superior potential in economics and military strength.

A good escape from all this may be found in *Captain Cousteau's Underwater Treasury*, edited by Jacques-Yves Cousteau and James Dugan. This collection of articles and excerpts from books provides an excellent survey of what has been going on under the water for a long time. It reaches from the jungle to the polar regions, from coral reefs to tunneling under the Thames, from caves and lakes to wartime encounters, from pearls to insects, from free diving to bathysphere, and from mythology to salvage. It covers many subjects as well as a wide range in time, from experiences in diving in 1850, the first underwater photography, and the first military use of the submarine—in 1776. Navymen will be interested in the story of *Wahoo*, by CDR Edward L. Beach, and "Midget Attack on a Japanese Cruiser," by Ian Fraser.

Even fiction is not safe from the war theme this month. However, in *The War Lover*, by John Hersey, the approach is much different. The story is primarily concerned with the life and death of a Flying Fortress and its crew from its arrival in Great Britain until it was shot down over the Channel some five and one-half months later. However, the real story centers about the relationship of the crew members to one another and what war does to them. There's a mild love interest involved, but that's not the point of the title. Find out for yourself.

For a change of pace you might try *Best American Short Stories of 1959*, edited by Martha Foley and David Burnett. This includes yarns by 20 modern American writers.

CORAL SEA

the battle and the carrier



END OF ENEMY CARRIER—Navy planes send Japanese carrier Kyukaka toward the bottom during Battle of Coral Sea.

A few months ago, USS Coral Sea (CVA 43) was commissioned for the second time in her career. This event, a part of the Navy's long-range program for the modernization of ships built near the end of World War II, marked the end of two and one-half years of conversion of this ship.

The last of nine aircraft carrier conversions at the Puget Sound Naval Shipyard, Coral Sea joins the Pacific Fleet along with her sister ships, the converted carriers USS Midway (CVA 41) and USS Franklin D. Roosevelt (CVA 42).

This is the story of Coral Sea, the carrier, and of the changes that were made in her, and Coral Sea, the Battle, after which she was named. It is adapted from her ship's

NAMED FOR BATTLE—USS Coral Sea (CVA 43) fuels DDE while pulling tour of duty in the Mediterranean.



history and from reports appearing in her ship's newspaper, "Coral Sea Breeze."

AT NOON, 15 Apr 1957, Coral Sea steamed into Puget Sound Naval Shipyard for the beginning of a two-and-one-half year conversion. Today, that conversion has been completed and the carrier is again commissioned in the service of the U. S. Navy.

Many changes have been made. Today, she is not only pretty, she is useful. Her angled deck is probably the most notable change. As with so many other carriers, it will make it possible to land planes with greater safety and makes it possible to launch and recover planes at the same time. Greater safety is assured with the new landing light assembly and the new arresting gear assembly. An extra catapult is on the angled part of the deck. Midships elevators have been removed and replaced with deck edge elevators.

The hull has been expanded four feet on each side. The bow has been closed in to form a hurricane-type bow. The old tripod mast was removed and replaced with a single mast suspended in the superstructure.

Modernized as Coral Sea may be, respect has been paid to ancient customs and traditions.

In Roman times, copper coins were placed in the mouths of the dead so they might pay their fare to Charon on the River Styx ferry. By placing a copper coin in the heel of the mast of a ship, the safe passage



BATTLE OF CORAL SEA was carrier duel. Left: Japanese carrier is hit. Rt: Sea is "shook" by strafing and bombs.

of all hands over the River was guaranteed if disaster should befall the vessel.

Another school of thought claims that a piece of silver, preferably a coin, placed under the mast will insure profitable voyages. Good luck will prevail on a ship protected with a coin under the mast.

During the original construction of Coral Sea, three copper coins were placed at each heel of the tripod mast. In 1957 the tripod was removed. The new single mast is not resting on its heel, but is suspended in the superstructure. Tradition could not be broken; therefore, three copper coins have been welded inside the mast at the base.

LIVING spaces have been modernized. The nerve center of the ship, Combat Information Center, is the most modern possible. Television aids have been installed to transfer information from Combat to other spaces.

The engineering spaces have been torn apart and reassembled. All working machinery has been overhauled and cleaned. Before conversion, the machinery of *Coral Sea* was as modern as in most of the Fleet. But it was

ON BOARD—Navy's battle-proven AD Skyraiders will be among the sleek jets aboard USS *Coral Sea* (CVA 43).



JET POWER—Twin-engine jet A3B Skywarriors will add punch to the modernized carrier when she sets to sea.



beginning to show signs of wear. Overhaul has brought good machinery back to good working order.

The landing lights fold into the deck, to reduce the danger of planes accidentally crashing into them. The lights are themselves a safety device, for they make it possible to land a plane with greater accuracy.

Five types of planes will be aboard.

The A3D *Sky Warrior*, a twin-engine jet two-seater will be used for high-level, high-speed attack, low-level attack, minelaying and photo reconnaissance.

The A4D *Skyhawk* is a single-seater light attack bomber. It is less than half the size of many U. S. jet fighters and yet it outperforms most fighters. It is so small that it does not need folding wings for stowage on a carrier. For a payload, this craft is capable of carrying more than its own weight in bombs.

The F3H *Demon* is an all-weather fighter type designed for carrier operation. This single seater plane carries the latest fighter weapons for air-to-air combat.

Used for several years by the Fleet, the AD *Skyraider* has proved itself as a dependable carrier-based aircraft. Power and maneuverability are the most important features of the ADs.

The fastest aircraft to be carried on board is the F8U *Crusader*, a single seater fighter. The maximum rated speed of this plane is well over 1000 miles per hour. Latest models of this craft will exceed twice the speed of sound. The plane carries the most versatile electronic equipment ever fitted into an aircraft. A hydraulic system controls the angle of attack of the wings to give efficient operation in flight, while safe landing speeds are obtained by increasing the angle of attack.

These planes will leave *Coral Sea* by three of the most modern catapults used in the Navy today. Two are located forward and the third on the angled deck. Each is equipped with an improved version of the wet accumulator, a major advance in catapult launching systems. Briefly, this is a large cylindrical pressure tank used to store the instantaneous punch needed for launching aircraft at very short intervals. Although the wet accumulator is an old concept used in shore-based power plants for peak loads, the improved version is an adaptation for launching aircraft.

Another new change on *Coral Sea* is the hydraulic bridle arresting gear, which works in conjunction with catapult launching. The cable that is used to attach a plane to the catapult is retrieved by this gear after the plane leaves the catapult.

The first plane was launched from an "aircraft carrier," USS *Birmingham*, 10 Nov 1910. *Birmingham* was not actually a carrier but a specially rigged heavy cruiser. The first ship designated as an aircraft carrier was the converted collier *Jupiter*. Her flight deck was

534 feet by 64 feet and her stacks were designed to fold down out of the way during operations. This ship was the first to have catapults.

CARRIERS HAVE COME a long way since the first days of carrier operations. They have frequently been compared to complete, self-contained cities and *Coral Sea* well fits this classification. All the innovations of the modern Navy have been incorporated in *Coral Sea* and many of the conveniences to be found in a city are to be found aboard.

Every large city has a radio station and *Coral Sea* is no exception. Four channels of music and news are piped throughout the ship. The music ranges from popular to classical. News broadcasts are recorded and played at regularly scheduled hours.

If illness should befall a citizen of the carrier, there are complete hospital and dental facilities—at no cost to the patient.

Shops that could normally be found on Main Street are also on board. There is a print shop, a butcher shop (with no cash registers), a shoe repair shop, barber shop, tailor shop, carpenter shop and a laundry.

A daily and a monthly newspaper is printed in the ship's own print shop. Distribution is free and the publications contain no paid advertising. Letters and money orders can be sent from the local post office. However, customers must buy stamps.

Soda fountains and soft drink machines provide a neighborly atmosphere.

For those athletically minded there are basketball and volleyball courts. There is also a conditioning room and a steam room.

Living standards are comparable to those of a shore-based naval facility. Gimmicks which will be found include: Personal bunk lights, writing desks, ironing boards, and four-man tables in the mess decks. Many working spaces are air-conditioned for comfort and a dry cleaning plant has been added to the laundry. A closed circuit television system has been installed for operational and entertainment purposes. While in port, TV can be picked up from shore stations and channeled throughout the ship for the entertainment of the crew. Underway, TV programs that have been put on film can be rerun. Live broadcasts are the ultimate aim of those operating the station.

Modern? Yes. But the old ways still keep cropping up. Sallying ship might be thought to be relegated to the days of sailing ships. Nevertheless, *Coral Sea* also indulged in this ancient maneuver.

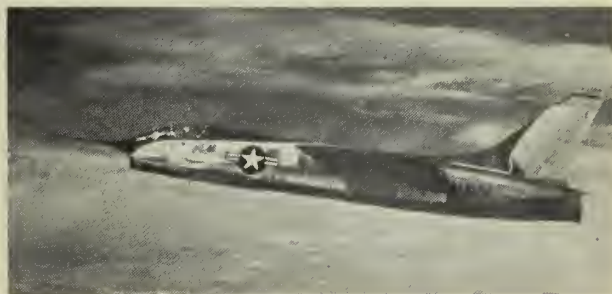
On the morning of 9 Jan 1960, all *Coral Sea* personnel reported to the ship for an inclining experiment. There were about 150 men available for the experiment—the entire nucleus crew minus those on watch and those on special work details.

The purpose was to determine the period of roll of the ship. The data gathered is to be used for computing certain quantities by the damage control section of the Engineering Department.

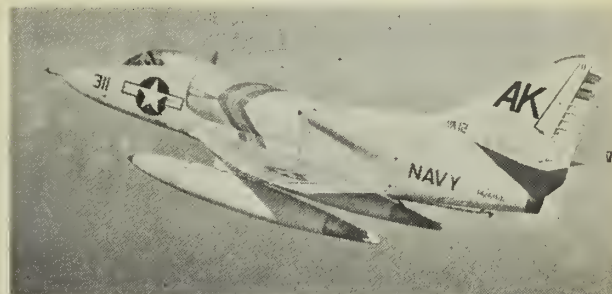
The only way to gather the data was to get the ship rolling and record the time for the ship to travel from maximum port inclination to maximum starboard inclination. To get the ship rolling enough to time the period of roll, the ship's personnel ran wind-sprints on the flight deck. By running from port to starboard and starboard to port several times, the ship was rolled enough to provide the necessary figures.



ANY TIME, ANY PLACE—F3H Demons will provide USS *Coral Sea* with all-weather protection during combat.



FASTEST FIGHTER—F8U Crusader fighters, capable of flying the speed of sound, will be fastest planes aboard.



BOMBS AWEIGH—The lightweight A4D Skyhawk attack bomber will carry potent payload off decks to targets.

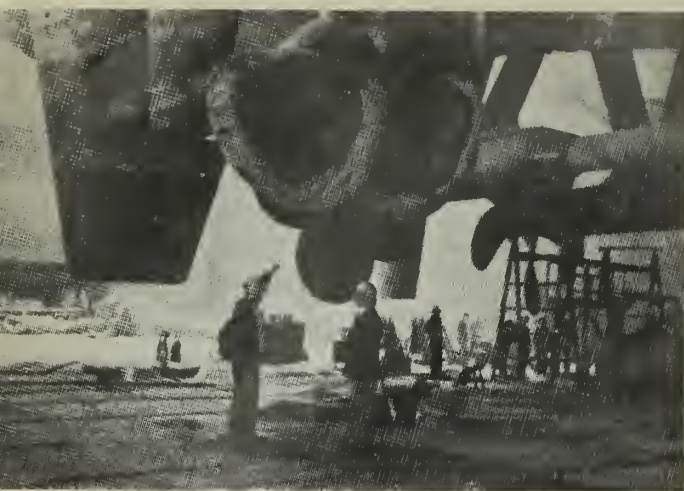
Coral Sea: The Battle

TWO SHIPS OF THE FLEET have been named to commemorate the Battle of Coral Sea, 4-8 May 1942.

The first major naval battle in history in which the damage done solely by opposing aircraft carrier planes, the Battle of Coral Sea was a prelude to the victory in the Battle of Midway and was a strategic victory for Task Force 17, built around the flagship carrier USS *Yorktown* (CV 5) and *Lexington* (CV 2).

The latter carrier sorted from Pearl Harbor as the flagship of Task Force 11 on 15 April and made rendezvous with the *Yorktown* force southwest of the New Hebrides Islands on 1 May.

At this time a powerful Japanese task force had been formed in the hope of winning control of the Coral Sea and cutting off Australia from the war. It was an invasion group of 11 transports which carried army troops and a naval landing force, screened by a destroyer squadron, and was to seize Port Moresby; a small invasion group which was to seize Tulagi and set up a seaplane



ON THE JOB — USS Coral Sea is seen in drydock at Puget Sound Naval Shipyard where it was modernized.

base; and a support group built around a seaplane carrier which was to establish a seaplane base in the Louisiades.

These enemy invasion groups were covered by a light carrier, *Shoho*; four heavy cruisers, and a destroyer; and a striking force of the Japanese aircraft carriers *Shokaku* and *Zuikaku*, screened by two heavy cruisers and six destroyers.

ON THE MORNING of 3 May, the *Yorktown* and *Lexington* task forces were some 100 miles apart and engaged in fueling operations. A few hours before midnight, RADM F. J. Fletcher, in command of Task Force 17, had received word that Australian-based planes had sighted enemy transports debarking troops at Tulagi. By daybreak of 4 May, he was in striking distance of Tulagi. Three attack groups departed *Yorktown* to strike at the invasion force. Their bomb and torpedo hits sank the Japanese destroyer *Kikuzuki*, three minesweepers, and four landing barges. Five enemy seaplanes were also destroyed and a number of vessels, including the destroyer *Yuzuki*, were damaged.

That same day, a cruiser and destroyer force (Task Force 44) joined the *Lexington* task force and on the morning of 6 May, all the forces were merged into a single task force (Task Force 17) under the tactical command of RADM Fletcher in *Yorktown*.

About daybreak of 7 May, an attack group of cruisers and destroyers were dispatched to the Louisiades to intercept any enemy attempt to move toward Port Moresby, then the carriers moved northward into the Coral Sea in search of the enemy covering forces.

About three hours later the Fleet oiler *USS Neosho* (AO 23) and her escort *USS Sims* (DD 409) were found by planes of the Japanese carrier force. After dodging bombs of two waves of aircraft totaling 25 enemy planes, they were attacked around noon by 36 dive bombers. *Sims* suffered three direct bomb hits, two of which exploded in her engine room, and sank stern first with great loss of life. Meantime, *Neosho* took seven direct hits and eight near misses and became a lifeless hulk.

She drifted before the wind until the afternoon of 11 May, when her 123 survivors were taken off by the destroyer *USS Henley* (DD 391) which scuttled *Neosho*. While *Neosho* and *Sims* were drawing off the planes of the Japanese carriers, aircraft from *Lexington* and *Yorktown* sank the light carrier *Shoho*.

ON THE AFTERNOON of 7 May, 27 bombers and torpedo planes were launched from the still unloaded Japanese heavy carriers *Shokaku* and *Zuikaku*. These planes made an unsuccessful search for the U. S. carriers and were returning home when they were intercepted by *Lexington* and *Yorktown* fighter planes. Nine Japanese planes were shot down in the ensuing dogfight.

As twilight descended, three of the enemy planes mistook *Yorktown* for their carrier, but managed to escape. Twenty minutes later, three others made the same mistake and one was shot down.

The major carrier battle began on the following morning when a *Lexington* search plane made contact on the Japanese striking force. Attack groups were immediately launched. In the first American attack of the war on a large Japanese carrier, *Shokaku* received two bomb hits from *Yorktown* planes which damaged the flight deck so that *Shokaku* could not launch planes, started furious gasoline fires, and destroyed her repair compartment for airplane motors. *Lexington* dive-bombers added another hit. The enemy carrier had 108 men killed and 40 wounded.

While the U. S. planes were attacking, *Yorktown* and *Lexington* prepared for a counterattack, for an intercepted message indicated that the Japanese knew the U. S. carriers' position. Shortly after 1100, the attack came. Seventeen enemy planes were shot down, but others broke through and launched torpedoes from both sides of *Lexington's* bow. Two torpedo hits on her port side were followed by a dive-bombing attack which scored three hits. At the end of the battle, she had a seven-degree list to port, three engineering spaces were partially flooded, several fires were started and her elevators were out of commission.

Meanwhile, *Yorktown* maneuvered to dodge eight torpedoes, and came under attack by dive-bombers. She evaded all but one bomb which penetrated her flight deck to kill or seriously injure 66 men. *Yorktown* brought all the fires under control and escaped with damages not enough to stop flight operations.

THE AIR BATTLE was over some 15 minutes before noon, and in little over an hour later, *Lexington* was on an even keel, three fires were out and the fourth under control. Her steering gear was intact, she was making 25 knots and conducting nearly normal flight operations. Her attack group returned and was landed.

At 1247 she was shaken by a heavy explosion caused by ignition of gasoline vapors below decks. Flames gradually spread aft and communications were lost as internal explosions became more frequent and the danger of torpedo warheads and bombs detonating seemed imminent.

At 1707 came the order to abandon ship. Men went over the side in orderly fashion and were picked up by nearby cruisers and destroyers. By the time the commanding officer, CAPT Frederick C. Sherman, the last man off the ship, was safely off, flames from *Lexington* were leaping hundreds of feet high. *USS Phelps* (DD 360) steamed within 1500 yards and fired two torpedoes into her hull to sink her.

Coral Sea has long been regarded as a tactical victory for the Japanese, but a strategic victory for the U. S. It had blunted the enemy's thrust toward Australia and turned them away from Port Moresby, their main objective. None of their warships would ever again pass the Louisiades in safety and Tulagi, the only objective attained by the Japanese, was canceled out by the landing of U. S. troops on 7-8 August.

One enemy carrier, *Shokaku*, was so damaged that she was out of action for the next two months, and *Zuikaku* suffered plane losses which kept her ineffective until June. Had these two carriers, with their pilots, been available for the carrier air battle of Midway, they might have supplied the margin necessary for a Japanese victory.

The first Coral Sea (CVE 57) was an escort aircraft



'NEW' SHIP—ADM J. S. Russell, Vice CNO, returns salute of CAPT J. S. Gray, carrier's skipper, at recommissioning.

carrier. Her original name of Alikula Bay was changed (during construction) on 1 Apr 1943, to Coral Sea. She was launched on 1 May, and placed in commission on 27 August. Her name was changed to Anzio effective 10 Oct 1944, and the name Coral Sea assigned to a heavy aircraft carrier under construction.

It is the second Coral Sea (CVA 43) which is now operating with the Fleet after her conversion job and recommissioning.

Launched in April 1946, she was commissioned in October 1947 and since that time until her conversion, her career has consisted of the ever-important routine of training, Sixth Fleet duty, overhaul, and more training.

NEW CLOSED-IN BOW will be appreciated by Coral Sea crew when the ship hits rough seas as on this 1949 cruise.



TAFFRAIL TALK

YOU WILL NOTE from our masthead that Vice Admiral William R. Smedberg, III, USN, is our new Chief of Naval Personnel. Here are a few items from his career to introduce him to ALL HANDS readers.

VADM Smedberg is the son of an Army brigadier general. A graduate of the Naval Academy class of '26, he has two sons in the naval service and a daughter married to a naval officer.

He has had a lengthy and varied sea-going career. He served in *uss New Mexico*, the destroyer *Mullany* and the cruiser *Northampton*. Then he became communications officer on a cruiser division staff and on the staff of Commander of the Cruiser Force, Battle Fleet.

From September 1939 to February 1942, VADM Smedberg served as aide to the Chief of Naval Operations, Admiral Stark. With the war on, he took command of the destroyer *Lansdowne*. *Lansdowne* got off to a good start by clobbering a German submarine, and ten days later sent another enemy sub to the bottom.

Some time later, while he was serving in the Pacific, his ship was subjected to a torpedo attack by a Japanese sub. Although it was during an ammo unloading operation, his ship successfully outmaneuvered the sub.

Reading through the citations, we see that VADM Smedberg did more than tangle with submarines. He commanded a ship that bombarded shore installations and beat off heavy air attacks during an invasion. His ship—in the midst of Japanese subs—rescued many Navymen from the sinking carrier, *uss Wasp*. He also served in support of landings at Saipan, Tinian, Guam, and the Battle of the Philippine Sea.

As captain of *uss Iowa* and commander of task elements of Fast Task Force 77, VADM Smedberg once again got into the shooting during the Korean conflict.

Here are a few more items of a crowded career. VADM Smedberg served as Chief of Staff to Commander Task Force 39 in WW II and later as Fleet Combat Intelligence Officer for Fleet Admiral E. J. King, USN.

He has commanded a destroyer division and squadron. He has been Chief of Staff of DesLant; Director of the Politico-Military Policy Division; and Superintendent of the Naval Academy. He was Commander of CruDesPac, and, before becoming Chief of Naval Personnel, he held two hats—Commander Second Fleet and Commander, Striking Fleet, Atlantic.

Among his decorations are the Silver Star, five Legions of Merit, Bronze Star, Commendation Ribbon and NUC. He received the Order of the British Empire. Incidentally, he is an expert with pistol and rifle.

VADM Smedberg was born in Arizona, went to school in Massachusetts, and calls Florida his home. That, briefly, is a quick summary.

And—this is goodbye to Admiral H. P. Smith, USN. Admiral Smith now becomes Commander in Chief, U. S. Naval Forces, Eastern Atlantic and Mediterranean (CINCLM). Many far-reaching advances in the field of personnel were made during Admiral Smith's tour as Chief of Naval Personnel. We need not go into them; you have been helped in your career by means of these advances. We'll just say this: Admiral Smith is going to a top command to which he is qualified by reason of his distinguished naval career.

The United States Navy

Guordion of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS

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• **AT RIGHT: EAR THIS** — Jimmy Chatterton on deck to meet his dad, a crew member of *USS Bryce Canyon* (AD 36) returning to Long Beach from the Far East, finds his close proximity to welcoming band a little hard on the ears.



A BALANCED FLEET



ALL HANDS

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MAY 1960



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

MAY 1960

Nav-Pers-O

NUMBER 520

VICE ADMIRAL W. R. SMEDBERG III, USN

The Chief of Naval Personnel

REAR ADMIRAL A. E. LOOMIS, USN

The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

Assistant Chief for Morale Services

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● **FRONT COVER: TEST RUN** — Navy's second Polaris-firing Fleet Ballistic submarine, USS Patrick Henry, SSB(N) 599, plows through Long Island Sound returning from cruise in the Atlantic. The nuclear-powered sub was commissioned in April.

● **AT LEFT: AT HOME** — View from above shows ships of Destroyer Flotilla Five moored at Pearl Harbor. The flotilla has a four-fold mission including: sea defense of the Hawaiian Islands; antisubmarine warfare; Barrier Pacific; and regular rotations and deployments to the Seventh Fleet.

● **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.



DISHPAN HANDS—Crevasse detector led way. Below: R4D brings supplies.



Touring

About the time the icebreakers *Glacier* and *Burton Island* were setting out on their tour of uncharted coasts (see last month's *ALL HANDS*), an eight-man party—seven scientists and one Navy enlisted man—were returning to McMurdo Sound from a 117-day trek across Victoria Land, south of the Ross Sea.

During their travels they covered some 1550 miles, most of it previously unexplored, and investigated a large, unmapped range of mountain peaks to the west of the Admiralty Range, and a huge glacier near Rennick Bay.

Studies accomplished included altimetry, glaciology, measurement of weight or density and measurement of heat radiated from the sun, plus psychology, meteorology, topography and geology.

The group was led by Netherlander Frans van der Hoeven, a seismologist conducting studies for

ALL HANDS

the U. S. Antarctic Research Program. They pushed off from New Zealand-manned Scott Base, and headed for Skelton Glacier in the Worcester Range, where the Navy's Air Development Squadron Six had established a food, fuel and explosives cache.

The leading sno-cat had a special crevasse-detector attached to its nose. Two other sno-cats and four equipment sleds completed the train.

About a week out they hit an area honeycombed by crevasses. Despite all precautions, one sno-cat broke through a thin snow bridge which hid a crevasse 60 feet deep and five feet wide. The leading cat, turning to help, nearly lost its sled in a second crevasse. It took six hours to restore both cat and sled to the surface, and then foul weather set in.

Several days later, visibility restored, a VX-6 *Neptune* made a low-altitude photographic flight, and warned of myriad crevasses still ahead. Next day two VX-6 helicopters were flown in. While observers in one copter radioed directions, the second hovered over selected spots and planted flagged bamboo poles to mark a safe trail. Thus aided, the ground party was able to reach the



TIRE-LIKE gasoline transporter is filled by Tom Baldwin, Jr., CMH2, USN.

for one more week, if we're lucky. Mess cat just broke fifth wheel. Can replace, but don't have any more spare wheels now."

Nearly a month later, the effects of the rugged terrain prompted an-

prefer to continue trip with two cats as long as those hold out."

The battered sno-cat abandoned, the party pushed on. Driving was really tough, Baldwin says. "We were bouncing all the time. By the

The South by Sno-Cat

cache the next day.

Clearing the crevasse area didn't mean an end to their troubles, however. Now they faced a new worry—mechanical failure.

Minor failures kept Navy construction mechanic Tom Baldwin, Jr., CMH2, USN, busy throughout the first month of the trip. It was in the second and third months of the trek, though, that serious breakdowns became an almost daily bugaboo.

Frequent messages radioed to NAF McMurdo, giving position and situation reports, reveal some of the difficulties they were encountering.

"Progress slow," one such message read, "due to rough snow surface. Had to use the last of our four spare outer pontoon bearings. Broke a tie rod end today, also pulled the runners out from under the Seismo sled. Think we can repair. We can keep going without new pontoon bearings

other typical message: "Had to stop late this afternoon, since detector cat can't be driven further in present condition. Would need extensive welding and bracing to repair. Suggest abandoning cat here, salvaging springs and tie rod ends. We would

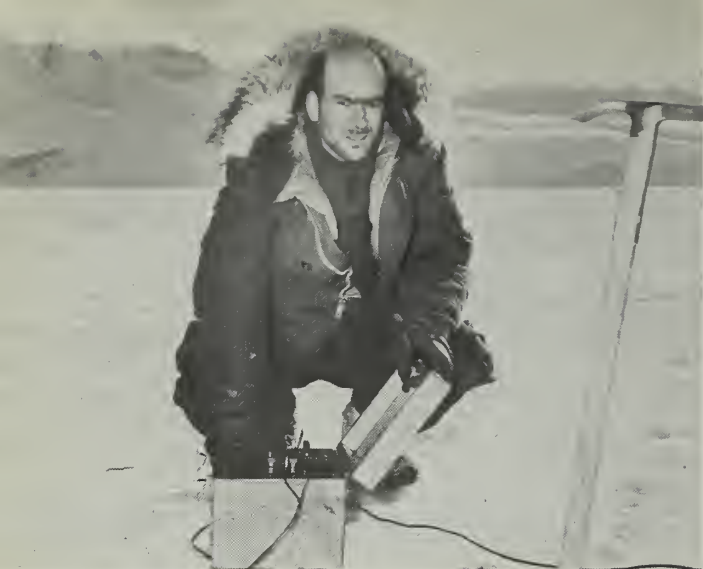
end of each day, we were all plenty tired."

"The toughest thing of all to take, though," he adds, "was the monotony."

The sighting of a bird could become a major event, and when they

HEAVE HO—Traverse party's mess cat pulls another snow cat from crevasse.





SCIENTIST Franz G. van der Hoeven, group leader, sets off charge. Rt: Navy photog W. A. Jackman, PHC, gets set.



saw, or even heard, a plane they would jump up and down with excitement.

Later, they had a *big* thrill. During an aerial reconnaissance flight a VX-6 *Neptune* sighted a large range of mountains near the Admiralty Range, and reported its presence to the party.

"We had terrible weather at the time," van der Hoeven remembers. "Visibility was almost nil."

Adds Baldwin: "Then, all of a sudden, it opened up and we could see the peak. It was about 30 miles to the east, and the most beautiful thing I've ever seen. We called it Mount Flat Top."

The *Neptune* also told of sighting a 30-mile crevasse field ahead. Some of the crevasses, they warned, were as much as 100 to 300 feet wide, with sheer walls 30 to 40 feet high.

"This was when our morale reached its very lowest," says van der Hoeven. "We had gone through

one crevasse field, and knew what to expect. We had no choice, we had to backtrack to bypass the crevasses, and this took a lot of time. I was much concerned, for the season was rapidly drawing to a close."

A message reached them from McMurdo, suggesting they bear south upon reaching the mountain to shorten the distance between McMurdo and a possible pick-up site. The date for air evacuation was set, and a valley some 180 miles from Hallett Station was designated as the spot.

It took the party four more days to reach the pick-up site. Then, a first attempt at air evacuation was stymied by bad weather. Next day, a ski-equipped R4D *Skytrain* was able to land, and the travelers, along with 3000 pounds of equipment, were bundled aboard for the flight to McMurdo and the first shower in nearly four months.

ON THE ROAD Victoria Land traverse party passes Hillary-Fuchs cache. Below: Supplies and gas are received.





Skyhook Bravo

CARRIERMEN AND SCIENTISTS on board USS *Valley Forge* (CVS 45) recently launched the great granddaddy of all balloons. The helium-filled plastic giant inched up through rollers until it towered 500 feet above the carrier's flight deck and was ready for launching. The balloon, dubbed *Skyhook Bravo*, weighed 1760 pounds and carried a gondola of scientific instruments that tipped the scales at 2903 pounds. *Skyhook Bravo* was released from *Valley Forge* about 100 miles south of the Virgin Islands. It soared to a height of 116,000 feet and the unmanned flight lasted eight hours before unexpected winds started blowing it out of the Caribbean Sea toward South America. The instrument package was jettisoned and recovered by USS *Hyman* (DD 732) and returned to the carrier to be used again in another *Skyhook* flight.

Top: Skyhook balloon is rolled out as it is filled with helium. *Top Right: Skyhook Bravo* towers above USS *Valley Forge*. *Lower Right: Tracer balloons* are launched to check upper atmosphere winds. *Bottom: Gondola* containing instruments is returned to *Valley Forge*.





USS Sargo breaks into Arctic night. Below: Crew members prepare to surface.



Touring

THE ATOMIC SUBMARINE USS *Sargo*, SS(N) 583, has added another chapter to the history of under-ice explorations in the Arctic.

Under the command of LCDR John H. Nicholson, usn, *Sargo* operated in the Bering and Chukchi Seas during the winter months and spent almost a month cruising beneath the polar ice packs.

When *Sargo* broke the ice at the top of the world on 9 Feb 1960, it was the fourth time a U.S. sub had reached the North Pole within the past 18 months. *uss Nautilus*, SS(N) 571, was the first. She reached the pole on 3 Aug 1958 in an attempt to demonstrate that a submarine route between the Atlantic and Pacific Oceans over the top of the world was feasible. *Skate*, SS(N) 578, was next. She made the transit just eight days after *Nautilus* and again in March 1959.

If *Sargo* was the third U.S. submarine to visit the North Pole, why was her cruise significant?

First, there is no sunlight in the

ALL HANDS

Arctic region during the winter months.

Secondly, the bottom of the Bering and Chukchi Seas is very shallow, ranging in depths from 120 to 180 feet.

Thirdly, Arctic ice has been known to be 100 feet thick at times, making underwater travel hazardous, and not leaving much room for an atomic submarine to squeeze through, even one such as *Sargo* equipped for such operations.

Sargo departed from her home port—Pearl Harbor—for the Arctic on 18 Jan. Eight days later she was joined in the Bering Sea by the icebreaker *uss Staten Island* (AGB 5). On 27 January, at about 61 degrees, 14 minutes north latitude, the two ships parted company. *Sargo* went under the ice and headed north.

Some 14 days and 21 hours later, after cruising 2744 miles under the ice, *Sargo* surfaced at 2:34 P.M. (EST), 9 Feb 1960, at the geographic North Pole. She surfaced seven times en route to the pole and five times during her return voyage. In most of the surfacings the entire



TOPSIDE—Party explores ice conditions in area around surfaced *Sargo*.

when that sub made its first trip to the North Pole in August 1958. For the job he did during that cruise, he was awarded the Commendation Ribbon with Metal Pendant from the Secretary of the Navy for his "outstanding performance of duty"

Arctic Research Branch of the Navy Electronic Laboratory at San Diego.

During the cruise into the Arctic Basin, the scientists took numerous samplings of ice and water. They studied current flow, and made many other oceanographic observations.

Sargo's 29 days under the ice was by far longer than the earlier voyages of *Nautilus* and *Skate*. In fact, her cruise equalled the combined total of time spent under the ice by these two subs during the three previous Arctic cruises. *Nautilus* spent five days under the ice during her cruise in 1958; *Skate* spent 12 days under the ice during each of her trips to the North Pole.

—H. George Baker, JOC, USN.

NUMBER THREE—*USS Sargo*, SS(N) 583, third U.S. sub reaches North Pole.



he North by Sub

ship was able to break through the ice. At the Pole, however, only *Sargo's* reinforced sail could penetrate the ice.

LCDR Nicholson planted the flag of the State of Hawaii at the North Pole (see page 35) and radioed Hawaii's Governor that "The Aloha Spirit has now been felt at both ends of the globe."

The purpose of *Sargo's* cruise was to continue exploration of the Arctic Basin. Like *Nautilus* and *Skate*, *Sargo* collected oceanographic data, including information on the "physical structure of the ocean bottom and sea and ice conditions in the relatively unknown area."

In addition to the scientific aspects of the cruise, *Sargo's* visit to the North Pole in the midst of Arctic winter reemphasized the ability of U.S. nuclear submarines to cruise at will in all parts of the world.

Sargo's commanding officer, LCDR Nicholson, is no newcomer to Arctic explorations. He served as executive officer and navigator aboard *Skate*

and "one of the finest navigational feats in modern naval history."

Besides her regular crew, *Sargo* carried a group of seven civilian scientists directed by Dr. Waldo K. Lyon, Head of the Submarine and



Navy Hydrographic Office in Washington, D. C.

Blasting the icebergs this year will be conducted as in the past, in an experimental effort to reduce the annual threat to North Atlantic and coastal shipping.

Last year the bergs were bombed for the first time by Coast Guard planes. The results of these tests, however, were questionable as the thermite bombs only shattered the surface of the masses of floating ice and did not penetrate them.

This year the Coast Guard will again use thermite bombs, but of the armor-piercing type for greater penetration.

In addition, the Coast Guard assault forces will use a new method of attack this year. Landing parties will board the gigantic bergs that become grounded along the coast. Holes will be drilled in them and the bergs will be mined with thermite charges. This method of attack is expected to demonstrate whether stranded icebergs that often block waterways and harbor entrances can be dislodged satisfactorily.

The U. S. Coast Guard has conducted International Ice Patrols an-

Our Coast Guard Friends —

GLACIER CHASERS

THE ANNUAL FLOW of icebergs in the North Atlantic is getting a blasting again this year.

In early March, the U.S. Coast Guard launched its 42nd annual attack when it re-established its ice patrol headquarters at Argentia, Newfoundland, and began daily ob-

PLOT THICKENS — Coast Guard officer (above) plots latest in iceberg development. Below: Pilots and observers are briefed before recon flight.

servation flights in the Grand Banks area.

Coast Guard planes, however, have been flying ice observation missions since January, but not as a function of the Ice Patrol. Ice warnings produced by these flights have been distributed to ships through the

nually since 1913, with the exception of the war years. This patrol was established shortly after 1500 persons died when *Titanic*—the largest ship then afloat—struck an iceberg on her maiden voyage and sank at a position no farther north than Boston.

It is estimated that 7500 sizable bergs break off the west Greenland glaciers each year. About 500 of the larger pieces of ice—many of them as long as a city block and half as high above the water—are carried along the Labrador current to the heavily traveled Atlantic sea lanes.

The normal rate of travel of the bergs is about 10 miles a day, although some have been known to drift at a rate of 30 to 40 miles a day for as long as six-day periods.

Each spring, when the frozen seas of the far north begin to thaw, the Coast Guard sets up its Ice Patrol headquarters at the U. S. Naval Station, Argentia, Newfoundland. At its disposal are long-range aircraft, ships and a mass of communication facilities. From then until the danger



ALL HANDS

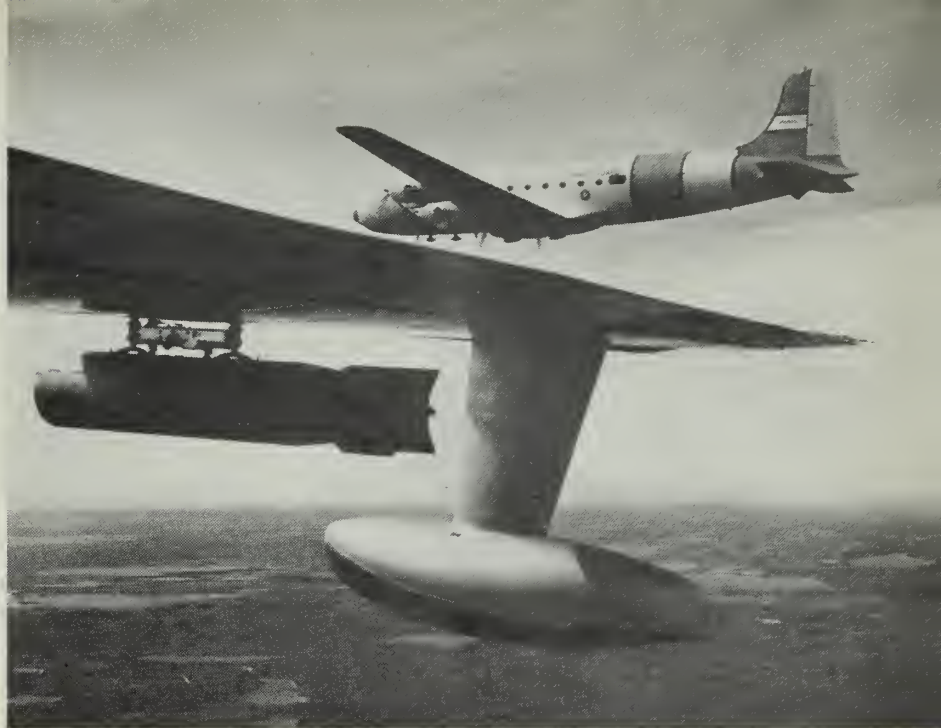
season is over—usually in late July—the patrol maintains a constant watch, searching out icebergs and warning ships of their positions. The patrol covers an area on the Grand Banks of Newfoundland roughly the size of the state of Pennsylvania.

Ships operating in areas adjacent to that patrolled by the Coast Guard are required to furnish the Ice Patrol headquarters data every four hours on their position, course, speed and visibility, the sea temperature and weather conditions. These reports enable the patrol to plot future observation flights, estimate ice melting rates and relocate drifting ice.

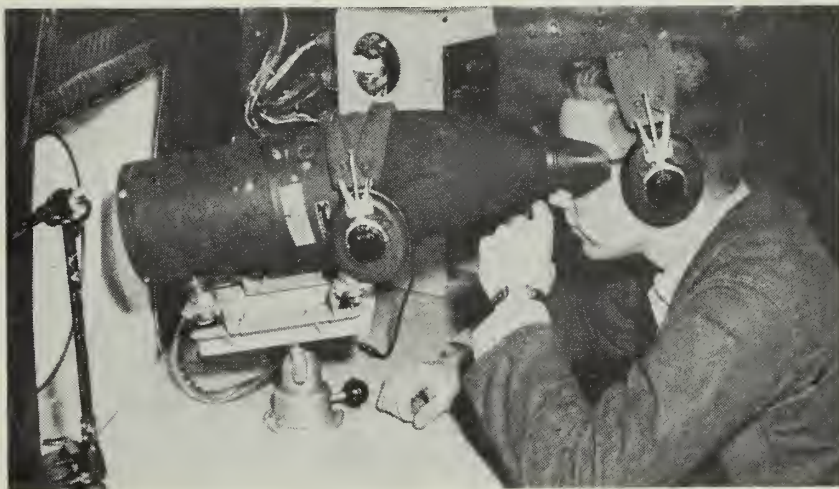
Radios at the Argentia headquarters are in constant touch with the patrol units and ships operating in the area. Reports of ice sightings are received from many sources in the western Atlantic and are analyzed to determine the actual and potential danger of the bergs.

Ordinarily long-range aircraft are used by the patrol to sweep the area in search of icebergs and to investigate the many scattered iceberg sightings reported by naval and merchant ships. However, sometimes fog obscures the critical area for weeks at a time and restricts flight operations. When this happens, Coast Guard cutters are sent out to make the searches.

Surface units assigned to this year's ice patrol include the ocean-going tug uscg *Acushnet* (WAT 167), the buoy tender uscg *Evergreen* (WAGL 295), serving as the patrol's oceanographic vessel, and buoy tender uscg *Gentian* (WAGL 290).



HOT SHOT—Coast Guard plane carries thermite bomb for test on heat destruction of bergs. Below: Radar on patrol plane helps spot dangerous ice.



BOMBS AWEIGH—Thermite bomb scores hit on iceberg. Right: USCG cutter monitors berg as patrol plane circles.





NEW ZEALAND AF man gets the word from P. M. Anderson PH3, USN.



PLANES mapped 500 miles of coast.

Down Under

Navymen get around. You'll find them serving in all parts of the world—working on a variety of challenging—and interesting—assignments. Here's a case in hand.

ONE DAY not long ago, Guam-based Composite Photographic Squadron Sixty-One (VCP 61) was directed to send a detachment to New Zealand to do a special job—mapping some 5000 miles of coastline.

Designated *Operation Coastcrawl*, the project was also an example of New Zealand-United States teamwork and cooperation. The Royal New Zealand Air Force was to provide the facilities of its jet base at Ohakea, plus its photo lab and personnel; the U. S. Navy furnished aircraft, equipment, supplies and men.

Supply was expected to present quite a problem, however. Ohakea had no support facilities for VCP 61's aircraft and its mission. Thousands of feet of film, cases of processing chemicals, aircraft and camera spare parts, maintenance equipment and records were required. There could be no running to the corner store for replenishment of special equipment once the squadron departed Guam. The detachment would then be 4000 miles from its source of supply.

One week after orders were received, VCP 61 Detachment Zulu launched a mass migration of the Seventh Fleet's remaining AJ-2P *Savages*.

Flying over the equatorial Pacific met the descriptions to be found in travel books, but this taste of tourism was given added point by the pros-



ALL TOGETHER—USN *Savages* line up with RNZAF photo plane: Rt: Christchurch is typical terrain that was mapped.

Operation Coastcrawl

pects of the 17,000-foot mountains of New Guinea.

Port Moresby was the first stop, where the aircraft were serviced by Fuzzie-Wuzzies. Glancing about, crew members noted that within a few minute's flying time, some of the world's most forbidding jungle was at hand.

The next day's flight to RAAF Station, Richmond, near Sydney, Australia, was uneventful. Weather delayed the takeoff to New Zealand until early afternoon. As the flight progressed across the Tasman Sea, the sky cleared and a bright moon lighted the area. The white Mount Egmont, New Zealand's Fuji, marked their destination and, shortly before midnight, landings were made at RNZAF Ohakea.

The first VCP 61 photo mission was flown the morning after arrival.

Base facilities were small, but efficient. The work for the U. S. Navy men and the New Zealanders was hard and the hours irregular. Aerology observers devised a system for getting immediate reports on clear areas for good photos. Flight crews ran into thunderstorm and icing conditions. Targets were 600 miles away and were only open a few hours on a few days.

Maintenance crews had to wait for late flying aircraft and then work through the night to have them ready for the morning launch. Processing crews began work when the first aircraft landed with film. Photo interpreters grabbed the film as it came from the dryer and could be found titling and plotting this same

film the following afternoon.

Problems arose and were solved. There was the matter, for example, of adjusting U. S. processing equipment to 250-volt, 50-cycle current. Unexpected lighting conditions created confusion among the lab personnel and extra work for the photo interpreters.

Weather was always a problem. Certain areas were checked for weeks before the sun peeked briefly through thick layers of clouds.

There was time for recreation. Crews were able to hunt deer (continuous open season), fish for 15-pound rainbow trout in huge Lake Taupo, observe fuming volcanoes and the geothermal novelties of North Island. (New Zealand consists of two large islands—North Island and South Island.) Flight crews were able to view some of the most beautiful country in the world—rolling green blankets of pastureland, speckled with white and black dots of sheep and cattle.

South Island presented its backbone of the Southern Alps which fed glaciers into rugged fiords.

Since New Zealand is primarily a farming country, the detachment was able to enjoy fresh vegetables, beef, lamb and dairy products which were so rare on Guam.

Meanwhile, the work moved. The four (outdated) *Savage* aircraft flew 310 hours the first three weeks. In one-third the predicted time, the CO of the detachment was able to report: "Operation Coastcrawl—completed."

—LTJG D. E. Blackwood, USN.



NAVY MEN found New Zealand land of unusual sights. Below: G. A. Butler, AN, USN, checks rolls of prints.



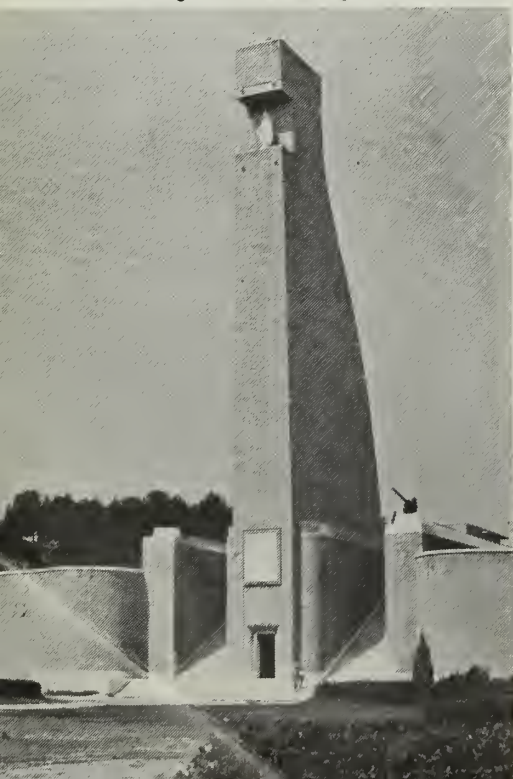


OFF WITH A ROAR—A squadron of Italian navy's motor torpedo boats cruises Adriatic during training exercises.

PT Boats—Italian Style

IN A SMALL BASIN on the coast of Italy, eager skippers and crews make ready for sea. Lines are cast off and a group of 63-ton torpedo boats ease themselves away from the pier into a 1,2,3 formation. They weave past Italy's rudder-shaped memorial to her naval war dead, through the outer harbor, and into

MONUMENT to Italy's naval war dead is passed by torpedo boats on leaving and entering their harbor.



the open Adriatic Sea.

These are the Italian navy motor torpedo boat teams. Their crews are inspired and challenged by the motto, "Remember Always to Dare."

The torpedo boat units take their place in the NATO framework in defense of Southern Europe and the Mediterranean Sea. Theirs is a story of hard work and daring seamanship.

The motor torpedo boat (M.A.S.) program in Italy dates back to World War I days when Fleet Admiral Paolo Thaon di Revelle ordered 400 of the small craft. Their fame grew almost overnight, particularly after the night of 8 Dec 1917, when a young naval officer named Luigi Rizzo led a task force of motor torpedo boats that sank the Austrian battleship *Wien*. Motor torpedo boats won a Gold Medal, Italy's highest wartime decoration, for that action.

Italy's torpedo boats continued to make a name for themselves in the final months of WW I and added to their reputation in WW II.

Today's torpedo-boat men, like those of the past, are a youthful group. Some crew members are still in their teens. Despite a lack of combat experience, however, each works like a seasoned veteran. A typical mock battle tells their story. This is what it's like:

The 1000-ton *Sagittario*, a fast

antisubmarine frigate, serves as flagship for Captain Guilio Valente, commander of motor torpedo boats. Today it is operating in the Adriatic for the maneuvers.

"We are a flexible force," says *Sagittario's* captain. "As the situation demands, we'll strike in force or disperse and hit individually. We can stalk silently like a submarine or roar in like a torpedo bomber."

Closely behind *Sagittario* is *Sentinnella*, a 300-ton fast corvette which acts as flotilla leader. Trailing are six torpedo boats and two gunboats. Everywhere radar antennas whirl incessantly.

The launching racks on both sides of each 78-foot torpedo boat are filled with 2000-pound torpedoes. Larger 125-foot gunboats display four 2500-pound torpedoes.

The flagship *Sagittario* has been designated as the ship to be "hunted." Time for the torpedo attacks draws close. With the swiftness and agility of a school of porpoises, the torpedo boats pull away from the formation. Moments later the target ship vanishes.

For the exercise, torpedoes are slated to be launched at 4000 yards. (In night exercises, radar-directed hits are known to have scored at twice that distance.)

Four boats swing into a single

ALL HANDS

line, anxiously waiting for attack orders from *Sentinella*, the flotilla leader. "Close-formation attacks allow our enemies only one radar target," discloses LT Giorgio Battaglini, leader of Squadron Forty Four. "However, if the situation changes, we disperse for single attacks."

Helmeted gun crews in orange life preservers whirl in their seats, making last-minute checks on 40mm and 20mm machine guns. Surface or air retaliation is likely to follow.

Suddenly the order flashes, "Attack." The skipper of the lead boat shoves his throttle to full. The bow of the boat leaps from the water as it heads for the kill.

As the target ship *Sagittario* closes, all eyes train on its starboard side, hoping their 2000-pound fish will strike dead center. Each torpedo is set to run five feet below the target's hull. In the nose, 400 pounds of water replace the TNT.

Only the launching of torpedoes remains to complete the training cycle. The boat's radar screen serves as the skipper's eyes during the attack and he alone gives the order to fire. A hit or miss depends on him.

"Fire," echoes the order. The first torpedo splashes into the water and heads for the target two miles away. Seconds later its destructive path forms a narrow wake.

"It's a hit." Theoretically the ship is sunk or badly damaged.

Other MT boats swing into position. Some off-center hits are scored. Not all are perfect. Several fire too early, others too late, reflecting the inexperience of young skippers. But



SURFACE SKIMMING — Motor torpedeo boat 453 speeds by at operational speed of 32 knots which allows a cruising range of approximately 100 miles.

their eagerness today will pay big dividends in the future.

"We would need darkness and speed to escape possible surface fire and air attacks," Captain Valente commented after the daylight scrimmage. "That is where we are most vulnerable."

The words barely pass his lips when a pair of jets roar in at almost radar-mast level. Gunners on the 20mm and 40mm machine guns twist and turn in dry runs on the screaming jets.

Black smoke streams from each jet as it shoots skyward and out of

sight. Again and again the planes return, each time from out of the sun to give little or no warning to gunners. And on each pass, the gun sights of alert marksmen quickly find their marks as the jets sweep back and forth over the formation.

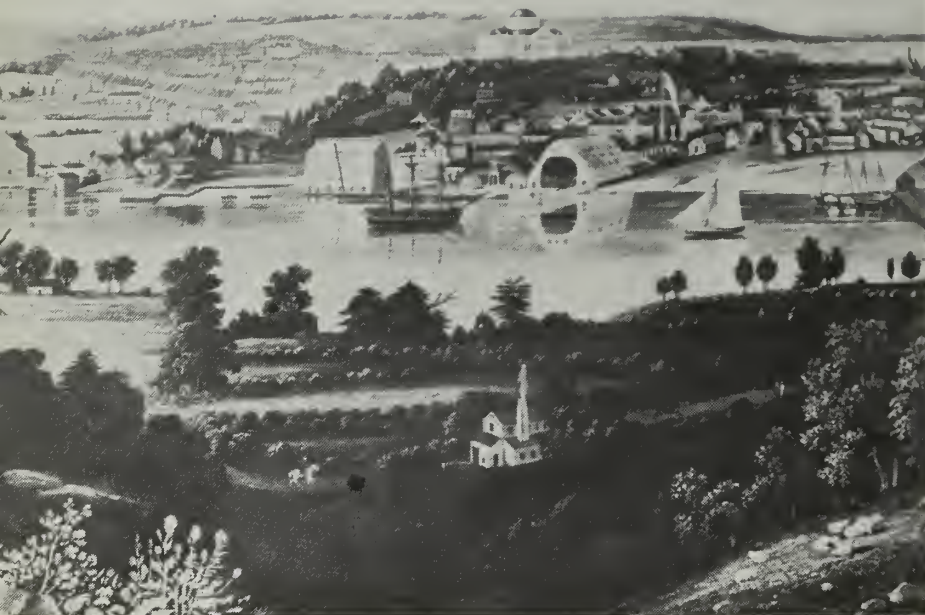
The day's exercise is over. Once again the MT boats swing in the direction of home where a de-briefing conference will point up the day's errors.

Next week they'll be at sea again for more training, operating with other units of the NATO navies.

—Gerald D. Short, JOC, USN

GUN CREW practices with 40mm antiaircraft gun. **Right:** Mechanic works on boat's high compression engine.





TODAY's Weapons Plant (at right) is a far cry from the old Washington Navy Yard, which dates back to 1799. View above shows it in 1837.

ALTHOUGH YOU MAY BE one of the most avid souvenir collectors in the Navy, chances are the knickknacks and trophies on your whatnot shelf would look pretty puny compared to some of the Navy's store of "little keepsakes" at the Naval Weapons Plant in Washington, D. C.

The Weapons Plant—known as the Washington Navy Yard from 1799 until 1945 and as the U. S. Naval Gun Factory from 1945 to 1959—took over 160 years to accumulate its collection. The items in it range from 300-year-old brass cannons to German and Japanese weapons of World War II. From periods in between there are such odds and

ends as Hotchkiss revolving cannons captured in the Spanish-American War, Confederate guns from the Civil War, a huge plaque describing the big railway guns made at the gun factory in World War I and assorted other reminders of the past.

Most of these relics are displayed in two quiet little parks almost within a cannonball-heave of busy shops where Weapons Plant workers now help to produce rockets and guided missiles. One park is named for CAPT E. H. Leutze, USN, Commandant of the Navy Yard from 1905 to 1910. The other is named for CAPT (later RADM) Arthur Lee Willard, USN, who commanded

LONG TOM, a leading participant in 1814 battle with the British at Fayal, is one of many unusual items in Weapons Plant "souvenir" collection.



Navy Guns

the yard during World War I.

A roomy old house facing the first of these parks is allegedly haunted by the ghost of CAPT Thomas Tingey who, as first Commandant of the Navy Yard, was the first occupant of those quarters. According to legend, Tingey served so long as Commandant (1800 to 1829) that he willed the Navy Yard to his heirs on his death. Opposite Leutze Park on the east is the oldest building on the Weapons Plant grounds—a structure remodeled in 1801 from a farm house built before the Navy Yard was founded in 1799.

ON THE ANACOSTIA RIVER waterfront of the Naval Weapons Plant you will find many historic ties. Nearby are areas of the old Navy Yard where the first Japanese diplomatic mission to the United States landed in 1860; where John H. Surratt was returned to this country from Egypt to be arrested as one of the conspirators in the assassination of President Lincoln; and where Charles A. Lindbergh first set foot in the United States after his famous flight in 1927.

The relics at this historic Navy site fit right in with their surroundings, for quite a few of them have been associated with great sea episodes and famous names.

For instance, there are several guns which CAPT Stephen Decatur



Down Through the Years

captured in fights with the Barbary pirates. Two of these are reminders of one of his most stirring exploits. They are brass 24-pounders with a six-and-one-eighth-inch bore manufactured in Barcelona in 1788 for Charles III of Spain. By the time Decatur came up against them off Tripoli on 3 Aug 1804 they were part of the armament of two enemy gunboats.

For years the Barbary corsairs had been preying on our commerce in the Mediterranean, and in 1801 the Bashaw of Tripoli went so far as to declare war on the United States. We reciprocated on 6 Feb 1802, but weren't able to launch an offensive with real teeth in it until the summer of 1804.

The pair of 24-pounders in Leutze Park are trophies of the first attack in that offensive.

DURING THIS SCRAP, Commodore Edward Preble's squadron moved within point-blank range of the Tripolitan's shore batteries so that the larger ships of the squadron could keep the batteries busy while gunboats, supported by schooners and brigs, closed with the enemy flotilla near the harbor entrance. Stephen Decatur, who had already made a name for himself in earlier fights with the pirates, commanded a squadron of three gunboats, and was captain of one of them. His brother, LT James Decatur, was

captain of another, and a LT Trippe captained the third.

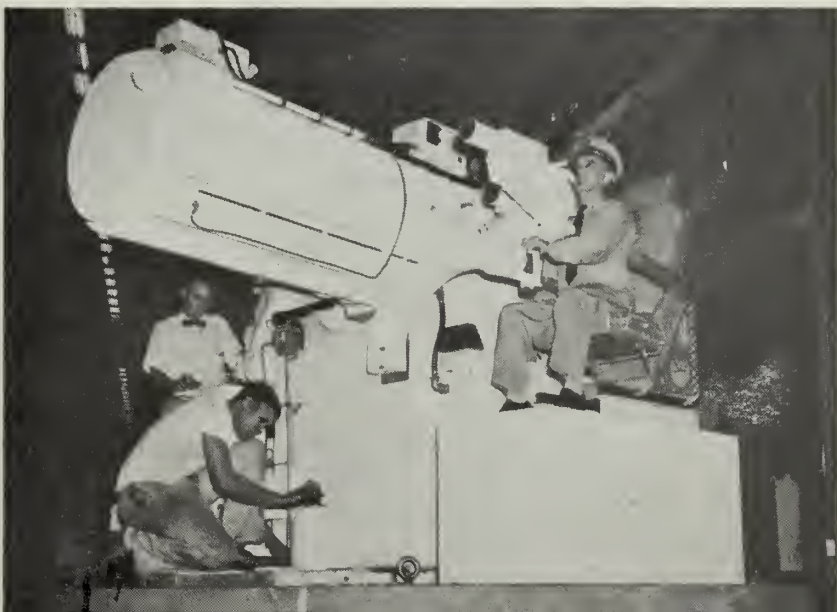
Decatur's division, using both oars and sails, advanced on a nine-boat enemy division. James Decatur fell in with one of the largest Tripolitan boats and inflicted heavy casualties on her before she struck her flag. But, as he was boarding the surrendered boat, the enemy captain shot him through the head. The Tripolitan, aided by other enemy boats, then made his escape.

LT Trippe ran alongside another large enemy boat and started to lead a boarding party onto her decks. Behind him came Midship-

man John Henley and nine enlisted men, who managed to clamber aboard the Tripolitan craft before Trippe's boat drifted off with the rest of the boarders. That left 11 Americans fighting for their lives against 36 of the enemy—and in those days the Barbary pirates held a wide and well deserved reputation for skill in boarding and hand-to-hand combat.

Trippe's party pitched into the corsairs with pistols, sabers, pikes and tomahawks, attacking so furiously that they cleared the enemy's decks within a few minutes. By the time the Tripolitan's colors were

LONG GLASS—24-inch telescope, produced by the Weapons Plant's optical shops, is used to track and record ballistic missile flights during tests.





HISTORY of plant is colorful. At left, John Surratt is returned from Egypt as conspirator against Lincoln.

hauled down, Trippe had 11 saber wounds to show for his part in the brief battle.

MEANWHILE, Stephen Decatur picked out his quarry, led his boarders onto her decks and took possession of her after a bloody brawl. Then, he took his prize in tow and went looking for another fight. In a second boarding action, he and his men captured another Tripolitan boat, which might have been the last prize of Decatur's career if it hadn't been for the heroism of one of his crew.

Decatur was in the middle of the hand-to-hand combat on the second enemy boat when a scimitar-wielding corsair spotted an opening and got set to split Decatur's skull. However, as the pirate started his swing, one of Decatur's men, disabled in both arms by wounds, threw himself in the way to protect his captain. Some historians say Seaman

Reuben James was the hero of this action. Others give the credit to a Marine named Daniel Frazier. In either case, Decatur's life was saved—and so were the two guns from Decatur's prizes which can be seen today at the base of the flagpole in Leutze Park.

ONE OF THE FAMOUS mementos at the modern Weapons Plant is a "Long Tom" with an equally colorful history. This cast iron 42-pounder, made in France in 1786, was part of the main battery of the 74-gun French man o' war *Hoche*. The British captured that ship and sold her battery, including the Long Tom, to the United States.

Somehow, the gun turned up next on a Haitian privateer, then about 1812 it was returned to storage in New York. It was brought out of storage during the War of 1812 to become the biggest gun aboard the brig *General Armstrong*, a privateer

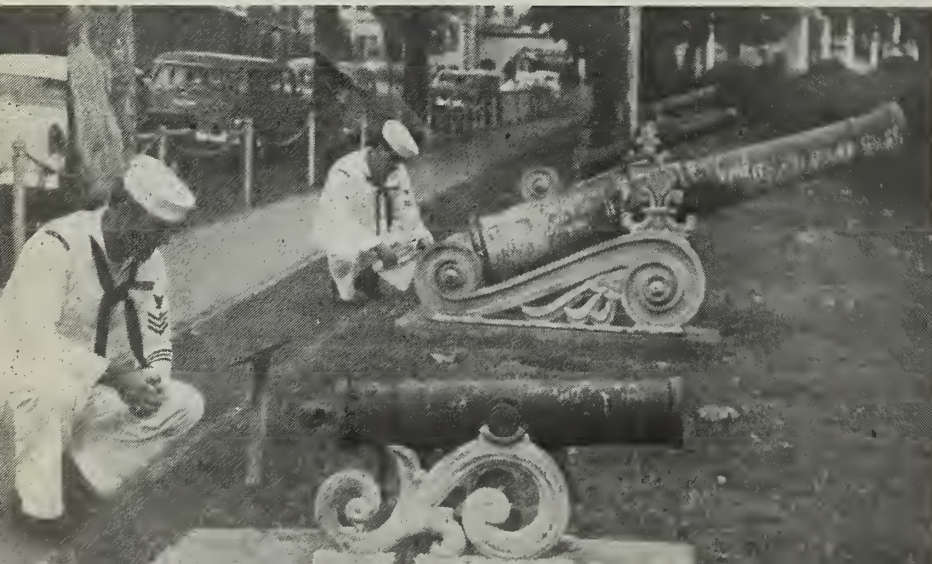
skippered by Captain Samuel Chester Reid.

(Reid, who had served under Commodore Thomas Truxtun as an acting midshipman in *USS Baltimore*, was later to figure in the selection of the 13-stripe design for the United States flag. See *ALL HANDS*, August 1959.)

Besides the Long Tom, which was mounted amidships, *General Armstrong* carried three nine-pounders on each side. She was manned by a crew of about 90.

The Long Tom blasted its way to fame on *General Armstrong's* fifth and last cruise, during a battle at Fayal, in the Azores. The American brig anchored in that Portuguese harbor on 26 Sep 1814. About sunset of the same day, three large British ships also put in there—the 18-gun *Carnation*, the 74-gun *Plantagenet* and the 38-gun *Rota*. On board they carried some 2000 troops who were supposed to become part

TROPHIES at left are part of collection of early Navy guns. Gun at right, from *USS Maine*, is in Willard Park.





BIG GUNS, center, were taken from



Confederate ram *Tennessee*. Cannonballs, right, are also Civil War relics.

of an invasion force then being assembled in the West Indies for the attack on New Orleans.

Although Fayal was a neutral port, Captain Reid foresaw trouble. He moved his ship in close to shore, where the big British ships wouldn't be able to come alongside, and made preparations for repelling boarders. Before long the British ships began lowering armed boats, and about dusk, four of them, filled with men, drew within hailing distance. Reid warned them to stand off, but after a brief pause the boats came on. The American ship let go with a deadly storm of grapeshot, which the British answered with small arms and the swivel guns mounted on two of their boats. The boats soon withdrew.

Around midnight the British attacked again—but with more heavily armed craft and a much larger force. Reid figured they had at least 12 boats and some 400 men.

This time the attackers threw all caution overboard, advancing through a murderous fire from *General Armstrong* to stage a fight which lasted 40 minutes. When it was all over, more than half of the attackers were either dead or wounded—many of them victims of the brig's Long Tom. Reid's casualties were only two killed and seven wounded.

Next morning, one of the British ships got within range of the privateer and opened up with her big guns. Although Reid returned her fire, he knew further resistance would be useless, so he attempted to scuttle his ship, and took his men ashore. As soon as Reid and his men were gone, British boarding parties took over. They finished off the troublesome little American ship by setting fire to her.

Many years later the Long Tom which had done so well in the battle was recovered from the bottom of Fayal Harbor and presented to the

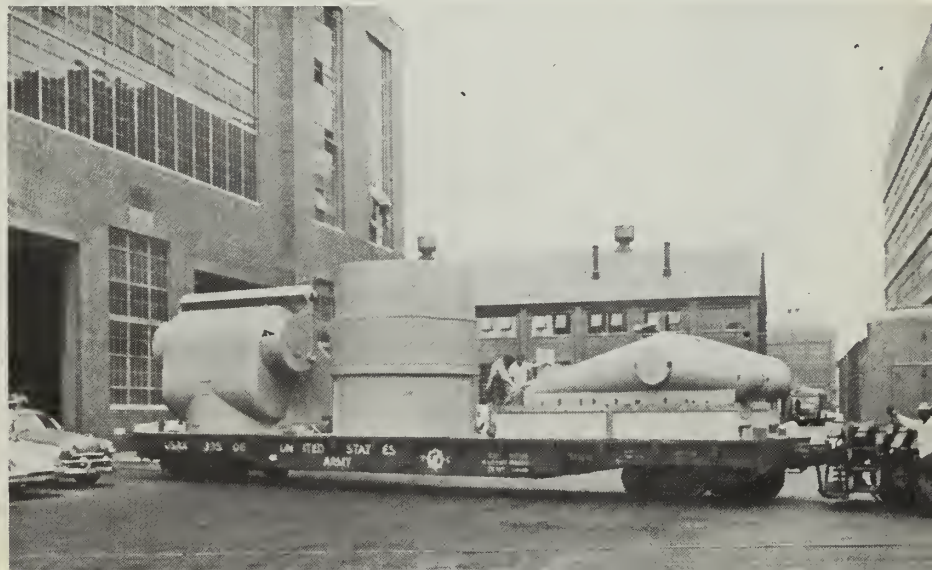
United States by the Portuguese government. Shortly after the presentation the gun was exhibited at the Chicago World's Fair of 1893. Then it went on to be "put out to pasture" in Leutze Park.

THE CIVIL WAR is well represented in the Weapons Plant souvenir collection. For instance, along one side of Willard Park is a line of rifled 100-pounders taken from the ironclad ram *Tennessee*, which historian Commodore Dudley W. Knox, USN, calls "the most powerful vessel ever to fly the Confederate Flag." These guns, almost a century old, are still mighty deadly-looking.

They must have looked even more sinister to RADM David Glasgow Farragut and his fleet at Mobile Bay on 5 Aug 1864—the day *Tennessee* fought her last fight and Farragut damned the torpedoes indelibly into history.

At that time the only deep-water

GUIDED MISSILE at left is Japanese Baka bomb. At right, modern missile-launching system is readied for shipment.





PACKED A PUNCH—"Old fashioned" cannonballs did this to a piece of six-inch armor in a test firing years ago.

passage into Mobile Bay was sown with mines (then called torpedoes) in such a way that the minefield and the only clear channel into the bay were covered by 23 heavy and 46 light guns mounted in and around the Confederates' Fort Morgan. *Tennessee* and three partly armored, light gunboats were there to contest any Union effort to enter the bay.

Farragut, with a fleet of four iron-

clad monitors and 14 assorted wooden steamers, planned to shoot his way through the clear channel, smash the Confederate naval force inside the bay, then take Fort Morgan and Fort Gaines (across the bay entrance from Fort Morgan) in joint operations with the Army. The four monitors led the way into the channel, followed by the wooden ships which were lashed together in pairs.

When the battle began, *Tennessee*, the Confederate flagship, stationed herself so that she partially blocked the opening between the minefield and the fort.

As you probably learned in boot camp, the channel passage was no pleasure cruise. *uss Brooklyn* stopped in the channel and wound up blocking the way for Farragut's flagship *Hartford* and the other wooden ships behind her. This gave the Confederate gunners of the naval squadron and fort a nice fat bunch of ships for a target. About the same time *Brooklyn* stopped, the Union monitor *Tecumseh* hit a mine and sank.

Despite this evidence of what the mines could do, Farragut ordered *Hartford* to lead the way past *Brook-*

lyn and through the middle of the minefield, shouting his famous, "Damn the torpedoes," in answer to warnings from *Brooklyn*. A number of mines touched *Hartford's* bottom, but these turned out to be duds.

Tennessee tried in vain to ram *Hartford* after she emerged from the minefield. Then the slow-moving Confederate ironclad turned to do battle with the rest of the wooden ships as they passed into the bay. She was able to damage the Federal steamer *Oneida*, which had already been hit in the boiler by a shot from the fort, and she withstood a ramming attempt by *uss Monongahela*, but that was about all she accomplished in this round of the fight.

Now, instead of staying in shallow water close to the fort and using her long-range guns to best advantage, or going after the Union transports outside the bay, *Tennessee* made the mistake of following Farragut's fleet into the bay. The Union ships turned on her with everything they had, but the Confederate ram proved a very tough nut to crack.

uss Monongahela rammed her again—so hard that she crushed her own stem. *Lackawanna* and *Hartford* rammed her too, then collided with each other while maneuvering to ram again. Although *Hartford* was badly damaged, she still tried to carry out her second ramming.

Besides trying to ram, the wooden ships also peppered the Confederate with their guns, but most of their shots just bounced off the ironclad's thick hide. The guns of the Union monitors were more effective—especially those of *Chickasaw*, who stationed herself under *Tennessee's* stern and blazed away at the Confederate ram for half an hour.

The ironclad, leaking and practically helpless, finally surrendered. By then her smokestack and rudder chains were gone. Of her six guns, only two were still usable—and they couldn't be brought to bear on the enemy. Twelve of her crew had been killed and 19 more were wounded, including the commander of the Confederate squadron, ADM Franklin Buchanan. On the Union side there were 335 casualties—113 of whom had drowned in *Tecumseh*.

Admiral Buchanan, who lost a leg fighting for the Confederacy at Mobile Bay, had good cause to ponder the fortunes of war after *Tennessee's* surrender. In April 1861 he had resigned his commission as



STAR-SPANGLED shield was once the bow ornament of *uss Olympia*, ADM Dewey's flagship at Manila Bay. Anchor in foreground is from same period.

a captain in the U.S. Navy because he thought his home state, Maryland, would soon secede from the Union. Less than two weeks later, he saw that Maryland would remain in the Union, and tried to have his resignation withdrawn, but it had already been accepted. So, he wound up on the Confederate side, became one of the South's leading naval figures and went on to oppose Farragut at Mobile Bay.

Following *Tennessee's* capture, her guns were added to the Washington Navy Yard's trophy collection, which Buchanan must have seen many times before the war. In his last assignment as a Union officer he had been commandant of the Yard.

SOME OF THE OTHER trophies at the Weapons Plant—also bring back recollections of the Civil War:

- A bronze 12-pounder—manufactured for Charles III of Spain in 1767 and believed to have been taken in the Mexican War—which was used by the Confederates and recaptured from them at Norfolk, Va., in May 1862.

- An assortment of guns captured in the amphibious operations against Fort Fisher, N. C., in August 1863.

- Guns from various Confederate blockade runners.

- And, guns taken from the Southern raider *Florida* after she was captured by the Federal steam sloop-of-war *Wachusett* at Bahia, Brazil, on 7 Oct 1864.

From the period of the Spanish-American War, the Weapons Plant also has relics and trophies that aren't likely to be found on the average whatnot shelf—for example:

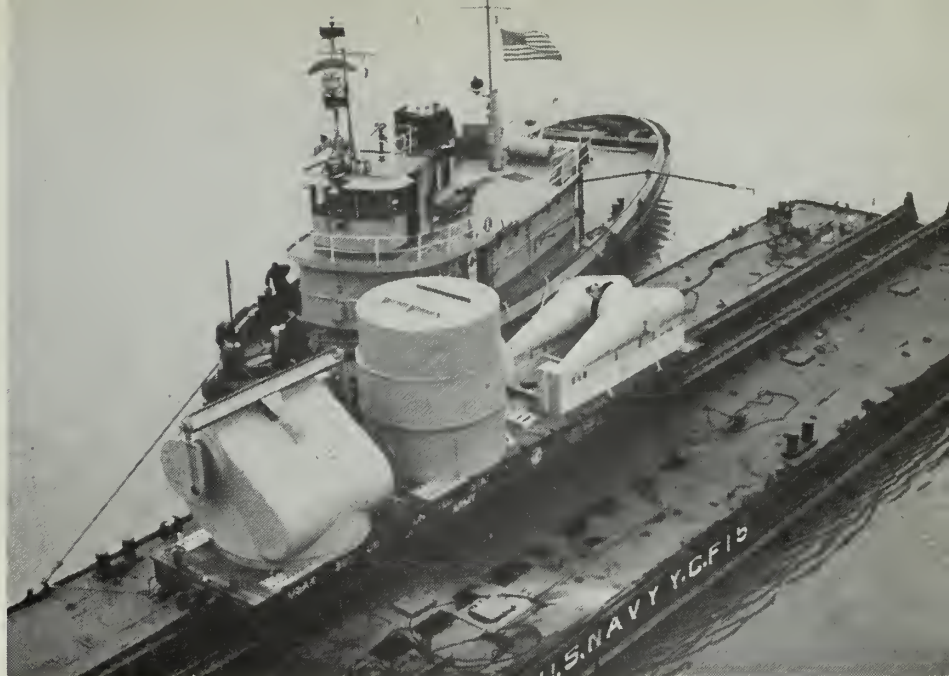
- A 6-inch gun, complete with shield and training circle, that was recovered from *uss Maine* after she was sunk at Havana, Cuba, in February 1898.

- The red, white and blue shield which decorated the bow of Admiral Dewey's flagship, *uss Olympia*, during the battle of Manila Bay.

- Bronze cannons, dating back as far as the mid-1700s.

- And, a trio of Hotchkiss revolving cannons that were captured at Santiago, Cuba.

TWO OF THE WORLD WAR I items at the Weapons Plant probably stand out more because of their connection with post-war events than they do for anything that happened in the



war. One of these relics is a 5.9-inch gun from the German cruiser *Ostfriesland*, which was flagship of the German fleet's First Battle Squadron in the Battle of Jutland. The other is a 4.1-inch gun taken from the German destroyer, *G-102*.

Both *Ostfriesland* and *G-102* were among the ships scuttled by the Germans at Scapa Flow in 1919 to prevent their delivery to the Allies. However, they were raised and brought back to the United States for study.

Representing World War II in the Weapons Plant collections are German anti-tank guns, a Japanese tank, and other fairly conventional weapons—plus some which are pretty unconventional. The most unusual of these is probably the Japanese *baka* bomb.

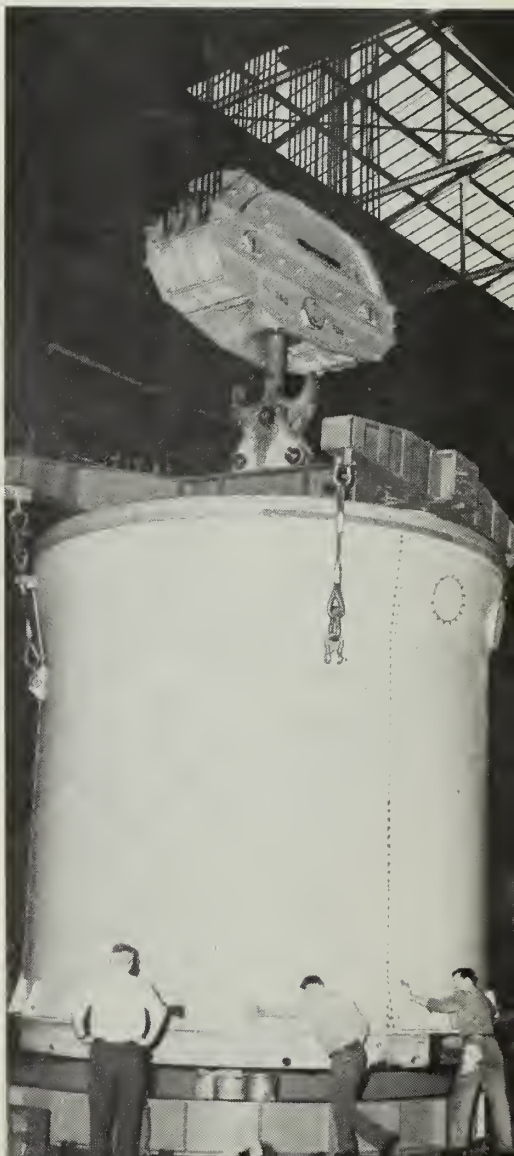
One of the few jet-propelled aircraft to see action in World War II, the *baka* bomb was a little monoplane with a 15-foot wing span, oval fuselage and twin vertical fins and rudders. It was designed to be carried into a combat area by a mother plane, then guided to its target by a kamikaze pilot, who aimed the plane—and the 2645-pound bomb in its nose—through a rifle-type sight.

Three tail rockets, which could be fired singly or all at the same time, gave it a top speed of about 630 miles per hour.

If you've got any of these babies in your souvenir collection, you'd better make darned sure the kids don't get their hands on it.

—Jerry Wolff.

WEAPONS PLANT of today works on such products as the *Talos* launcher above and, below, magazines for the *Tartar* launching system.





HOVERING FOR HOIST copter prepares to transfer injured destroyerman from USS Bache (DDE 470) in rough seas.

Ambulance Service on the High Seas

WHILE GALE WINDS lashed their hovering copter, an airborne Navy rescue team safely executed a precarious air transfer of a seriously injured man from the destroyer *Bache* to the flight deck of aircraft carrier *Randolph*.

The airlift, an example of Navy emergency teamwork, was made above extremely rough seas 200 miles south of Cape Hatteras, N.C., where both ships were operating with Task Group Alfa.

This is how the story developed. While transiting an exposed area of the main deck, a member of the crew was smashed by pounding surf against the destroyer's steel superstructure. When shipmates reached him, he was unconscious and bleeding severely.

Within minutes, a hospital corpsman had applied pressure bandages to halt the flow of blood from several head and facial lacerations. The injured man regained consciousness shortly after, but his condition did not look good.

It was decided to transfer him to the carrier with its hospital facilities.

A stretcher was rapidly prepared for the highline on a ship-to-ship

transit. For nearly two hours, the men of the *Randolph* deck force battled the elements in an attempt to rig a highline over the raging water between the carrier's fantail and the bobbing destroyer steaming in her wake. Three attempts, each one involving changes of course and speed for the entire task group, failed and then the 20-foot ocean swells halted deck-based efforts.

An HSS-1 helicopter was then enlisted for an airborne transfer. This all-weather, day-and-night sub-hunter is rarely employed in ship-to-ship transfers, but the regular "Angel" was undergoing repairs.

At 1:30 P.M., *Randolph* launched "Lucky 81" and an escort helicopter. The HSS-1 hovered into position above the fantail of *Bache*, rolling and pitching violently. The copter crew carefully lowered the litter in a sling to several destroyermen below, all struggling to keep their balance. The litter was detached, and the helicopter pulled away while the *Bache* crewmen strapped the injured man into his basket.

The destroyermen flashed the green "approach" flag for "Lucky 81" at 2:04. The helicopter dropped

her rescue cable and hook.

The lines from the wire basket were secured to the end of the helicopter's swaying cable. With the aid of a mechanical hoist, the copter crew raised the litter slowly and swung it, with difficulty, out of the wind and into the aircraft cabin.

Thirty-nine minutes after its launching, "Lucky 81" was once again back on the carrier.

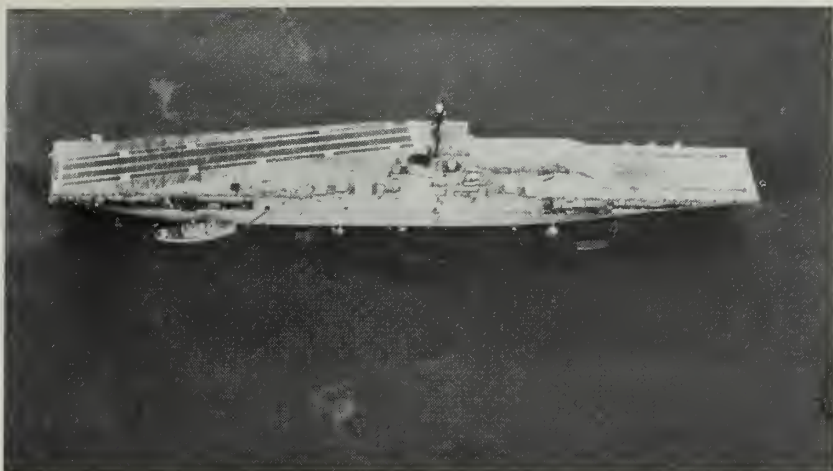
The injured man was carried below to Sick Bay's operating room. For more than 90 minutes, the *Randolph* surgeon, assisted by the ship's physician and seven hospital corpsmen, worked over the accident victim. He was found to be suffering from severe laceration of the back of the skull (but no fracture), multiple lacerations of the face and a broken nose.

That night the surgeon reported his condition much improved, and the following day, as the rough weather abated, he was airborne again for transfer to Norfolk and the Portsmouth Naval Hospital.

It's all in the day's work. But in an emergency it's nice to know that medical care isn't far away, even to a ship in rough seas.

LUCKY 81 returns to USS *Randolph* (CVA 15) with injured Navyman. Rt: Patient rides carrier's elevator to sick bay.





AT ANCHOR in Pensacola Bay USS *Antietam* (CVS 36) is visited by a tug.

Pensacola's Navy

LITTLE IS HEARD about sea-going units at Pensacola, the cradle of the Navy's air complex, but here in the midst of aviation activities, you'll find a group of old salts adding to their reputation as seafaring men.

About the only ship that most local residents will recognize is USS *Antietam* (CVS 36), the Navy's first angle-deck aircraft carrier, which is attached to the Naval Air Basic Training Command. But Pensacola does have other sea-going units. They are assigned to the Boat Division which is a part of the Operations Department at NAS. Although these small boats and yard craft are midgets compared to a carrier, they still do a big job. They provide logistic support for *Antietam*, conduct search and rescue missions and maintain a seaplane drome.

The largest of Pensacola's mighty mites are the tug boats, YTB-522 and YTB-729. Their main job is to provide routine services to *Antietam* when she goes to sea and returns to her mooring buoys at Pensacola Bay. (Berthing facilities to accommodate carriers are currently being built at Pensacola's Allegheny Pier.)

In addition, the tugs furnish pulling power for the barges used to carry fuel, oil, fresh water and supplies to the antisubmarine support carrier. Tugs are commanded by a CPO and manned by a crew of nine.

A utility landing craft (YFU-47) with a five-man crew hauls other supplies and provides garbage service for the carrier.

Two Navy crash boats are also

based at Pensacola. AVR-19 is a 43-footer while AVR-84 is 63 feet long. Each of them has a crew of four. They are always on a standby status in the event a plane is forced to ditch in the bay or some small craft runs into trouble.

Then there's a self-propelled floating crane, YSD-52, with a seven-man crew that is available for all sorts of salvage work.

Working with these craft are five qualified divers, trained and equipped for both deep-sea and shallow-water diving.

Additional duty for the Boat Division is the upkeep of the seaplane drome at Pensacola that is maintained to service transient seaplanes. This service includes marking sea lanes and providing clearance and guidance for planes landing and taking off.

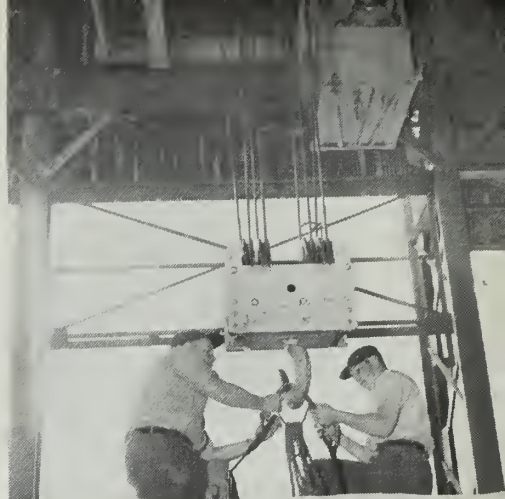
The Boat Division also provides mooring facilities and assistance to any ship that may visit the area.

For the local deep-sea fishing enthusiasts, there's a 43-foot fishing boat assigned to Special Services but maintained by the Boat Division.

In general, personnel attached to the service craft section of the division are on sea duty, while those assigned to the yard craft are on shore duty.

Regardless of how they are assigned, these salts know their jobs call for plenty of seamanship. And without any hesitation, they'll tell you that they are the "Black Shoe Sailors of the Airdale Navy."

—Frank La Pointe, JOSA, USN

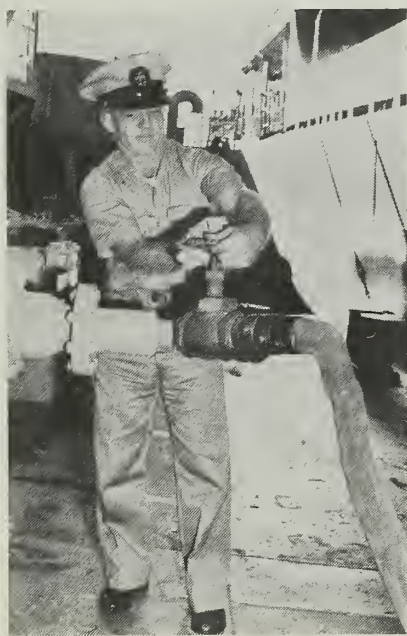


HOIST AWAY—Boatmen prepare to lift boats from water for repairs. Below: Crash boats, floating crane rest at berth at NAS, Pensacola, Fla.





CRAFTMASTER is congratulated. Rt: C. W. Lockety, FN, USN, mans the helm. Below: Chief engineer regulates water.



The Drinks Are Free, and '105

THIRSTY ships stopping over or based at Pearl Harbor have a big welcome for a small craft that comes to visit them. Its job is to provide drinking water for their crews and feed-water for their boilers.

uss YW-105, the Navy's only water tender in the Pearl Harbor area, is the thirst quencher. By supplying this delivery service YW-105 eliminates the need for larger ships to move about in the harbor to take on water. The water tender carries a split cargo of 100,000 gallons of drinking water and 140,000 gallons of boiler feed-water. To replenish a destroyer, the type of customer the craft most often services, "105" spends one hour to discharge 20,000 gallons.

The small craft in past years

served as a yard oiler. The "No Smoking" signs that used to be seen on its weather decks have been removed as the ship's present cargo just won't burn. So today the smoking lamp is usually lighted throughout the tender.

A well trained crew of nine, trained in all phases of seamanship, operates the craft with ease and safety. The crew is composed of a BMCS (the craftmaster), ENC (the chief engineer), EN2, FN, CS2, and four SNs. Both versatility and team work are called for in the jobs of the crew. A crew member might be doing mess cook duty at one time and manning the helm at another, or you might find an engineman securing his engines to rush topside to help with the hoses.

CONNECTIONS— E. D. Ferguson, SN, and A. G. Egbert, EN2, connect hose. Rt: L. P. Hudgins, GS2, feeds crew.



ALL HANDS



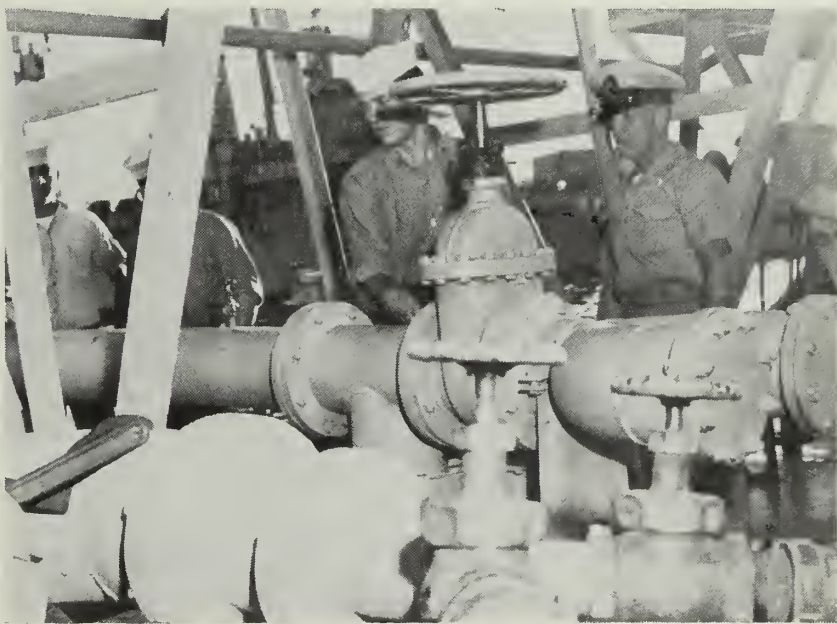
SKIPPER of USS YW-105, Clyde Marsh, BMCS, sets craft's course. Rt: Water tender supplies USS Sproston (DD 577).

Delivers Also

Once alongside, it takes the crew only seven minutes to have water on its way to the receiving ship. When the load is delivered the craft is under way in five minutes.

In charge of this smooth running group is a salty craftmaster, Clyde Marsh, BMCS, a veteran of 23 years of naval service. The Senior Chief Boatswain's Mate has had three previous small craft under his command. His water tender is under the operational control of Com 14, but for administrative purposes it comes under the Pearl Harbor Naval Station's Small Craft Headquarters.

The hard working crew of YW-105 all agree that they get a big kick from the congratulatory remarks made by ship skippers for a "bottle feeding" well done.

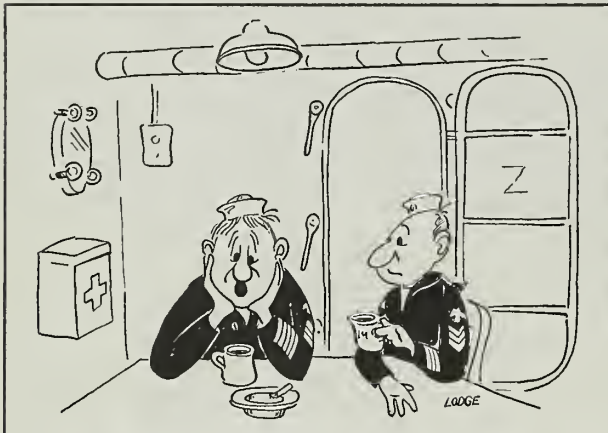


WATER WORKS—E. F. Peine, ENC, supervises the release of main water valve. Below: USS YW-105 returns to berth.

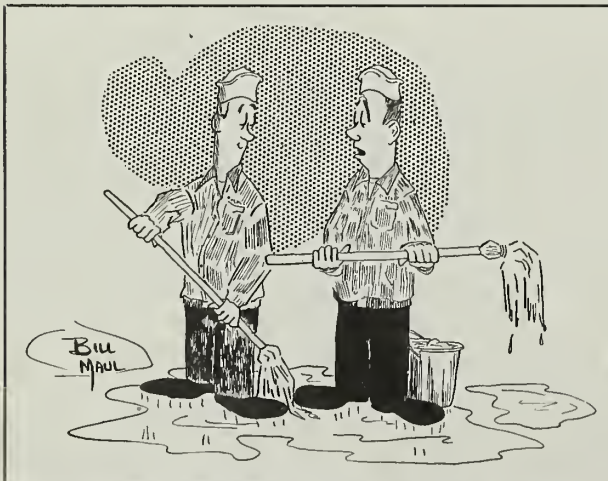




"There it is chief, just like you said."



"I worked hard, saved my money, sent my son to college . . . and what happens! Now he is my C.O."



"I believe my first mistake was when the recruiter asked if I'd like a commission and I said, No, I'll just take a straight salary."



"Gad, now they got their own train."

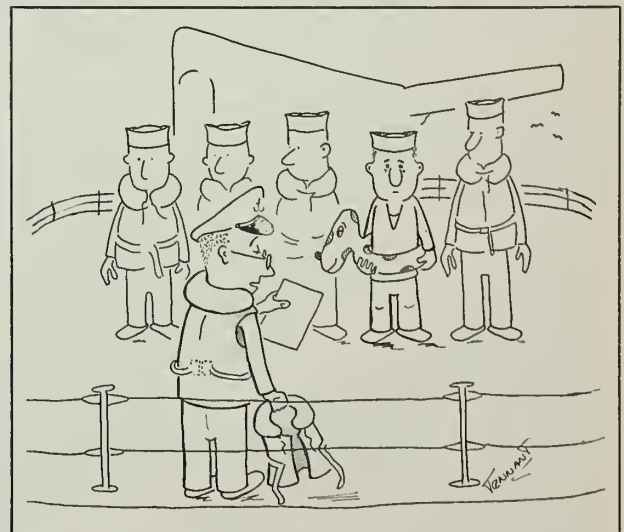
Just for Laughs

A QUARTERMASTER STRIKER capitalized on an age-old seafaring joke to win first prize in the Fifth All-Navy Cartoon Contest. He is John L. Draves, QMSN, USN, of the ocean radar picket ship *uss Lookout* (AGR 2). In addition to winning the top honors, Draves also copped the First Honorable Mention.

All-Navy Championship Trophies furnished by the Chief of Naval Personnel will be presented to the first five winners and Honorable Mention Certificates will go to the 15 runners-up.

Draves' cartoon—based on the much-searched-for mail buoy—was selected over 450 cartoons entered in this year's contest.

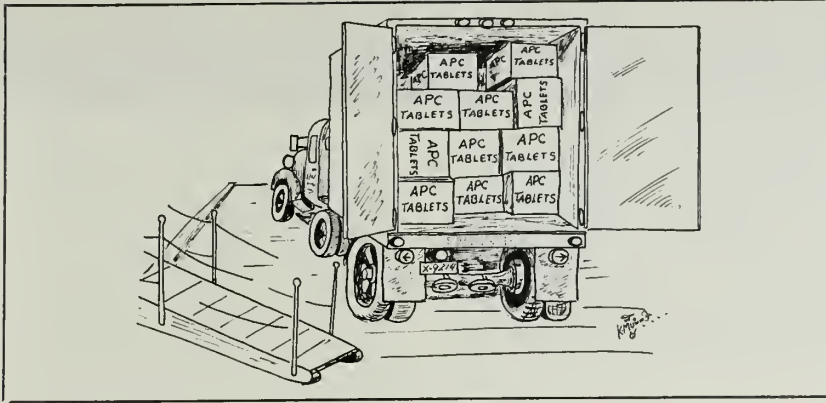
The second place cartoon was entered by Frederick E. Cooksey, RMC, (SS) USN, who is serving in the



"So much for the dope sheet. Now then, I have an announcement to make. Is anyone missing his kapok lifejacket again?"

THIRD HONORABLE MENTION

William K. Munn, ENC, (SS), USN



"All hands, lay down to the pier, to load medical supplies!"

submarine *uss Thornback* (SS 418).

LT Billups E. Lodge, USN, of the Fleet Air Defense Training Center, Dam Neck, Virginia Beach, Va., won more honors in this year's contest than any other entrant. He placed third and won two honorable mentions. Last year he also had three winning entries.

Also returning to victorious grounds was William T. Maul, CT1, USN, of the Naval Security Station, Washington, D. C. He won fourth place and the second honorable mention. Last year he copped third place plus 7th, 10th and 15th honorable mention. In 1956, in the Second All-Navy Cartoon Contest, Maul placed third.

Fifth place winner in this year's contest was Theo. H. Tennant, YNC, USN, of the CINCPAC Flag Allowance. He also won the 12th honorable mention.

Other winners in the Fifth All-Navy Cartoon Contest include:

SECOND HONORABLE MENTION

William R. Maul, CT1, USN

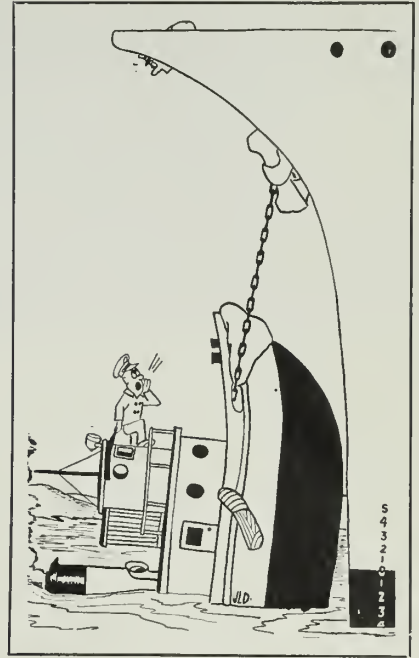


"We can't sort of 'co-exist,' huh, man?"

MAY 1960

FIRST HONORABLE MENTION

John L. Draves, QMSN, USN



"I believe we've gotten our anchors fouled."

FIFTH HONORABLE MENTION

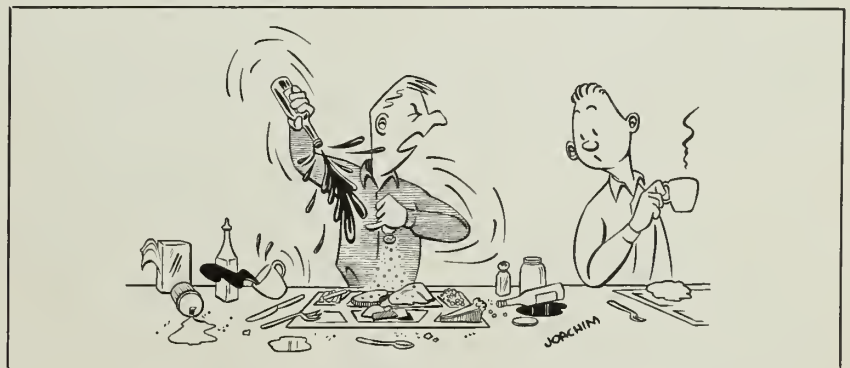
William V. Rockett, AM2, USN



"Guess who's playing today."

FOURTH HONORABLE MENTION

David F. Joachim, JO3, USN



"It's a crime the way Navy cooks ruin perfectly good food!"

25

LETTERS TO THE EDITOR

Duty Beyond 22 Years

SIR: I'm still confused after having read and re-read BuPers Inst. 1133.12A, which concerns continuation of enlisted personnel approaching, completing, or exceeding 20 years of service.

What puzzles me, is the fact that only certain E-7 rates are listed. How does this affect those in pay grades E-6 and below?

My conclusions are that no person, regardless of rating or pay grade, may reenlist or extend beyond 22 years of active service. Am I correct or not?—L. M. S., PNC, USN.

• You are so right. All personnel, including those in pay grades E-8 and E-9, with less than, but approaching 20 years' active service, are prohibited from reenlisting, extending their enlistments, or executing active duty agreements for a period of time which would extend their active duty beyond 22 years.

Then, upon completion of 22 years of active service, all personnel except those serving in six ratings—SHC, LIC, SFC, EOC, ABC and SDC—may reenlist or extend their active duty agreements, if they meet all necessary requirements and are fully qualified professionally and physically.

Personnel in the six ratings listed above with 20 or more years of active service must request permission from the Chief of Naval Personnel before they can reenlist or extend their enlistment.

(It must be stressed that the list of ratings requiring special authorization to remain on active duty is subject to periodic review and change depending upon the needs of the service.)

Applying for Class 'A' School

SIR: I have heard that Fleet personnel can now be made available for assignment to various service schools. How can I apply for one of these?—J. D. B., AN, USN.

• Non-rated Fleet personnel may request certain Class "A" schools in accordance with BuPers Inst. 1510.86A. Requests should be submitted in letter form to the Chief of Naval Personnel (Attn: B2132) via the chain of command.

To be eligible you must meet the requirements for the school that you desire to attend and have the necessary obligated service.

If and when you are selected, a trained relief will be ordered to your command by the appropriate EPDO. See your personnel officer.—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

BuPers Inst. 1430.11A requires personnel selected for E-9 who have 17 or more years of service to remain on active duty for a period of three years from date of advancement to pay grade E-9. Personnel selected for E-8 as a result of the August 1960 exams and after must remain on active duty for two years from date of advancement.—Ed.

Eligible for E-9 Exam

SIR: I was advanced to UTCS on 16 Dec 1959. I have more than 17 years' continuous active service, and was in pay grade E-7 for more than six years.

My question: Will I be eligible to participate in the August 1960 E-9 exam? Two commands in the area of my current duty station hold conflicting views on this subject—one says yes, the other says I won't be eligible until August 1961 or later.

Which is right?—E.H.M., UTCS, USN.

• You'll be eligible to take the test for E-9 this August, provided you're recommended.

The time in grade requirements for advancement to E-9 for the August 1960 exams are at least one year as E-8 and six years E-7 and E-8 service. However, a heading on page one of enclosure (1) to BuPers Notice 1430 of 5 Nov 1959 permits those E-8s advanced on 16 Dec 1959 who have six years' combined service to participate in the August 1960 exam.

Good luck.—Ed.

Integration and LDO Programs

SIR: It has been my understanding that the Navy has always wanted and still wants mature, well qualified, seasoned officers. To obtain these the Navy launched the Integration—so-called Seaman to Admiral—Program. This program, I thought, was designed to give the "qualified enlisted man" an opportunity to better himself and the Navy by advancing to the rank of officer. Fine, but now the Bureau has reduced the age limit for this Integration Program to "under 25 years."

So far as I can determine, this move eliminates the seasoned, career petty officers from the picture and leaves this

program open only to the youngsters and college grads—the short-timers—many of whom are in the Navy simply to fulfill their military obligation.

It is almost impossible for a man to make chief today before he is 25 years of age because of time in grade requirements. I certainly would like to meet the CPO or warrant officer who is under 25 years of age, seasoned and fully qualified. It seems to me that the only officer program open to the career man is the LDO program and all others are for the birds. That is, so far as the backbone of the Navy is concerned.—W.E.E., PN1, USN.

• There were two primary reasons for lowering the maximum age requirement for the Integration Program. First, it was desired to appoint a greater number of younger men through this program so that they would be in the same general age group with their contemporaries who were procured from other sources.

Secondly, there is the continuing need for the Navy to make the best possible use of its available technical personnel. Before the maximum age for the Integration Program was lowered, most of the personnel appointed under the program were coming from the technical ratings. They were being commissioned as unrestricted line officers, regardless of their enlisted training and experience.

True, there are very few CPOs or warrant officers who would be under 25 years of age at the time of applying for the Integration Program. With the lowering of the maximum age for this program, more of the younger men in the lower ratings will be recommended, selected and appointed under the Integration Program. This leaves the older, more highly trained and experienced personnel available under the LDO Program, thus allowing their past train-

Does Previous Hitch Count?

SIR: On 15 Dec 1956, I was discharged from the Navy as a GM1. On 15 Oct 1957, I reenlisted as a GM2.

Does the previous time in rate as GM1 and GM2 count for multiple now, or does the time in rate period for multiple purposes begin when I reenlisted?—W. M. R., GM2, USN.

• The time you spent as GM1 and GM2 during a previous enlistment can be counted toward total multiple now.

Your eligibility for advancement, however, starts on the date you reenlisted.—Ed.

ing and experience to be put to good use more effectively as technicians or specialists.

BuPers Inst. 1120.18F says that the LDO Program is the principal enlisted to officer program of the Navy.—Ed.

Saginaw at Kure

SIR: In the "What's in a Name" column in a back issue, you make mention of USS Saginaw's wreck on Kure Island in the Pacific in 1890. You say this happened on "the return voyage". The voyage to where—Pearl Harbor or United States?

I flew over Kure—some sources spell it Cure—in 1940, and as I remember, it is a small island about 50 nautical miles west of Midway.

What was Saginaw doing there in the first place? If you could find the answer, you might have a good sea story.—CAPT. W. V. Gough, Jr., USNR.

• We have the answer, and a good sea story as you said.

USS Saginaw left Midway on 28 Oct 1870 en route to the United States. Aboard was a group of construction men who had spent about six months on Midway readying the island as a halfway coaling station for commercial traffic headed for the Orient.

CDR Montgomery Sicard, commanding officer of Saginaw, intended to come within sight of Ocean Island (now Kure), early the next morning to verify its location (no one was quite sure just where it was) and to pick up any sailors who might have been stranded there. Since the island was out of the ordinary sea lanes, there would have been very little chance of rescue from other sources.

About 0300 on 29 October, Saginaw ran aground on the island she was looking for.

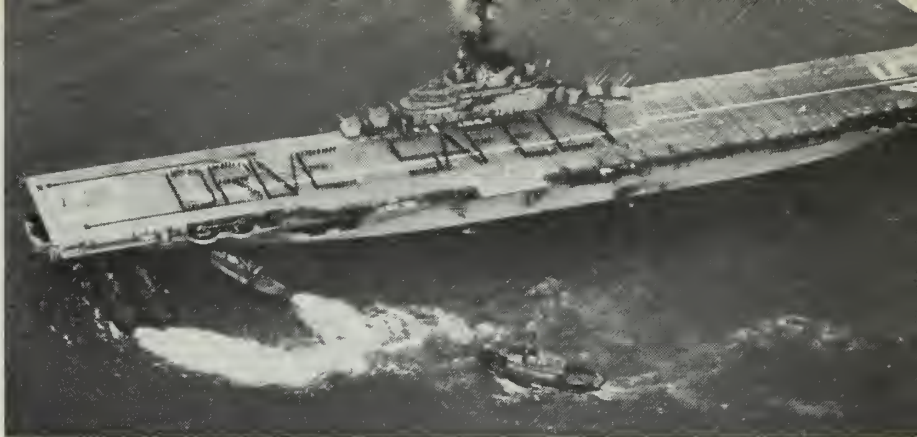
After attempts to free the ship failed, and with a hole in the hull, the ship was abandoned and all hands (93 of them) successfully got ashore on the uninhabited island. They salvaged a boat and a small amount of food and supplies.

Once aboard the island an old boiler was set up to distill fresh water.

Knowing their chance for rescue was practically nonexistent, a boat was fitted out for a 1500-mile voyage to Honolulu—the nearest port from which relief could be expected. (No clue is offered as to why they did not return to Midway.)

One officer and four enlisted men volunteered and were selected for the small boat trip. They were LT John G. Talbot, executive officer of Saginaw; William Halford, coxswain; Peter Francis, quartermaster; and seamen John Andrews and James Muir.

On 18 Nov 1870, the group departed. Thirty-one days later on 19 Dec 1870, they arrived off Kauai, one of the Hawaiian group. When they



WISE WORDS—Crew members of USS Valley Forge (CVS 45) line up topside to spell out motto at the start of the Happy Valley's safe driving campaign.

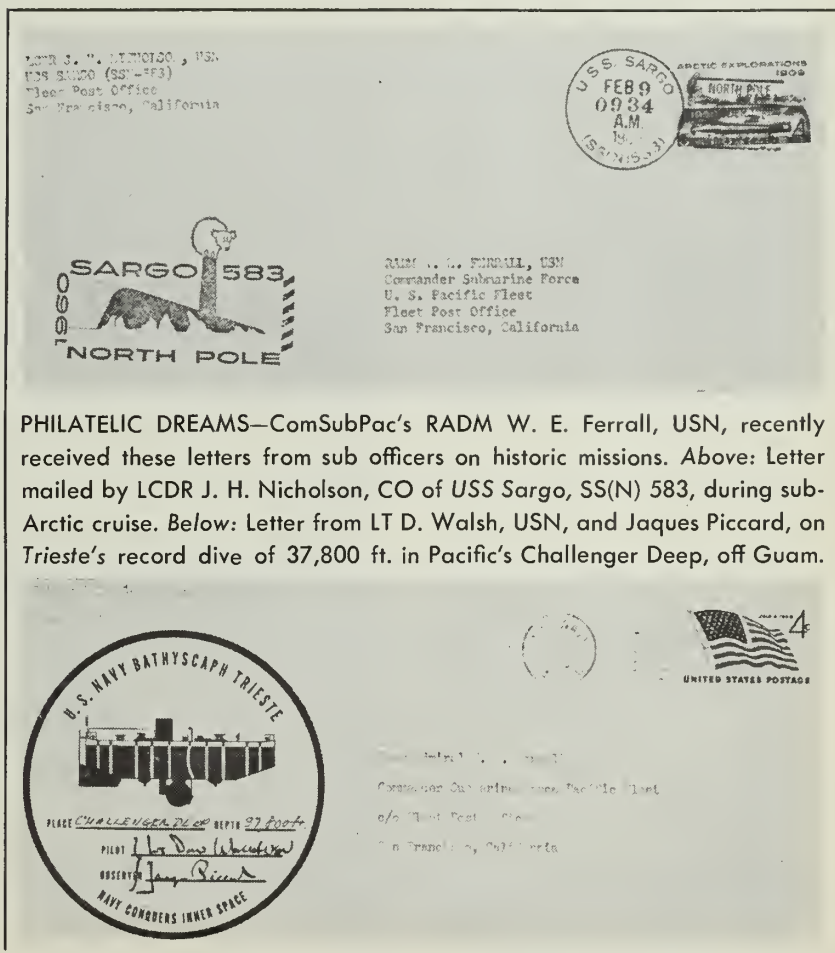
attempted to land, however, the boat was upset, and LT Talbot and three of the men, already exhausted, were drowned in the surf. Only William Melford struggled ashore with the dispatches from CDR Sicard.

When the U. S. Minister to the Sandwich Islands (now Hawaiian Islands) received the message, he immediately chartered a vessel—which sailed the same day—to rescue the shipwrecked crew.

When the rescuers arrived, CDR Sicard and his men had been using material from the wrecked ship and

had almost completed a new schooner that was perfectly seaworthy, and sufficient, under favorable circumstances, to carry the entire shipwrecked group to safety.

If you want more details, an ALL HANDS book supplement about the incident was published in October 1949, p. 59. There is also a book, The Last Cruise of the Saginaw, written by Paymaster George H. Read, USN, that tells the story as seen by the surviving coxswain of the small boat and the paymaster himself, who stayed aboard the island.—Ed.



PHILATELIC DREAMS—ComSubPac's RADM W. E. Ferrall, USN, recently received these letters from sub officers on historic missions. Above: Letter mailed by LCDR J. H. Nicholson, CO of USS Sargo, SS(N) 583, during sub-Arctic cruise. Below: Letter from LT D. Walsh, USN, and Jaques Piccard, on Trieste's record dive of 37,800 ft. in Pacific's Challenger Deep, off Guam.



WHAT IN THE WORLD—Weird looking copter is a skycrane with new light-weight minesweeping gear. Here it demonstrates its sweeping techniques.

Tour of Non-Rotated Ships

SIR: Could you enlighten us as to what constitutes a normal tour for personnel in non-rotated ships.

There's been a lot of discussion concerning this subject lately aboard this particular non-rotated ship, caused by an apparent discrepancy between the *Enlisted Transfer Manual* and BuPers Inst. 1300.15C.

Article 6-11 of the ETM, which became effective 1 Aug 1959, states: "Duty in non-rotated ship or staff afloat permanently based outside the U. S. is *not* considered overseas service for rotation purposes."

In addition, Article 6-15, ETM, reads: "Normal tours for personnel assigned to overseas-based, home-ported, non-rotated ships, staffs and units will be for two years unless located in an area where the prescribed tour is less than two years, in which case the shorter tour will be established."

However, Paragraph five of BuPers Inst. 1300.15C, dated 9 Dec 1958, has this to say: "Normal tours for personnel assigned to non-rotated ships, afloat-based staffs, and afloat-based units will conform to regular sea tours except that such tours shall not exceed the tour lengths 'with dependents' specified in Enclosure (1)."

Enclosure (1) of that instruction lists the tour for Japan as 24 months without dependents, and 36 months with dependents.—J. L. F., HM1, USN.

• Glad to. The *Enlisted Distribution* section of the Bureau of Naval Personnel tells us that paragraph 6-15 of the ETM will be changed to read:

"Normal tour lengths for personnel assigned to toured sea duty"—that is, overseas-based, home-ported, non-rotated ships, staffs and units—"will be for those periods prescribed by the

area or type commander, and shall not exceed the tour lengths established by the Secretary of Defense (see Section 6.5)."

This change will eliminate the conflict between the ETM and BuPers Inst. 1300.15C.—ED.

Nuclear Power Rating?

SIR: Are there any plans afoot to begin giving personnel working in the nuclear power field examinations for advancement in rating commensurate with the duties they perform?

The rigorous training program those of us in the nuclear power field are required to follow leaves us little or no time to study the training courses es-

tablished for our ratings. This puts us at a disadvantage come Fleet-wide exam time.

As it stands now, I'll be examined on equipment that I've never worked on, or had much of an opportunity to read about, when I go up for second class.—J. T. R., ETN 3, USN.

• The matter of establishing a Nuclear Power Rating has been periodically considered of late. However, no favorable action has been taken thus far. Therefore, unless such a rating is established, you and all other personnel assigned to the nuclear power program will continue to be examined in your respective ratings.

Now then, let's examine your contention a little more thoroughly. Most everything, we're fond of pointing out, is relative. This would appear to be another case where this holds true.

For instance, while it is true that the rigorous and time-consuming training program you are involved in doesn't leave you as much time to study for advancement as a man working full time in your particular rating, look at it this way—large numbers of nuclear power trainees have been, and should continue to be in the future, selected for NESEP and commissions, so the training you are receiving certainly shouldn't work to your disadvantage in the long run.

Also, nuclear power students have done well in past in pro-pay and advancement-in-rating competition, and there's no reason to think they won't continue to do so.

There's another thing to keep in mind too—test items are developed from requirements contained in the "Qualifications for Advancement of Enlisted Personnel" (NavPers 18068 revised) and the "Training Publications



ANTARCTIC GRASSHOPPER—Deep Freeze personnel check Navy Grasshopper weather station that automatically transmits reports by radio signals.

for Advancement in Rating" (NavPers 16052). Questions are not "equipment-orientated," and any reference to a particular piece of equipment is to illustrate a basic principle which is, or should be, common knowledge to all personnel of that rating. You should rarely, if ever, encounter a test question concerning a machine of which you have no knowledge whatsoever.

One final item—when you applied for nuclear power training, you were advised of the contents of paragraph 11.51, "Enlisted Transfer Manual," which reads:

"Applicants volunteering must understand that most of the training offered will be in a new and technical field and will involve extensive out-of-rating or cross-rating training."—Ed.

Bo'sun Artist

SIR: On page 392 of the *Boatswain's Mate 3 and 2 Manual* (NavPers 10121-B), it says a mixture of the three primary pigments—red, yellow, and blue—when mixed in equal proportions, will produce black paint.

Maybe so, but when I mixed red formula #40, yellow formula #42, and blue formula #43 in equal amounts, I did not get black paint. What went wrong?—A. L. M., BM1, USN.

• The theory is correct, but to make black paint from these three pigments, they must be pure basic pigments. The three formulas you used were not pure. They contain additives and filler pigments.

Yellow formula #42, for example, contains chrome yellow (which may vary from pale yellow through deep orange), zinc oxide (white), plus driers which contain manganese, lead and cobalt naphthenates.

For normal use in mixing paint, these formulas are good, but they are not suitable to demonstrate a color principle.

The results you obtained with this experiment are explained on page 392 of the *BM3 and 2 Manual*. It says if the mixture of the three pigments turns out to be a muddy gray or brown, it indicates that "the paints were of unequal color strength." That is, they were not pure basic pigments.—Ed.

Benefits on "Nineteen and Six"

SIR: Is there any difference in the rights, privileges or anything else which are allowed a man entering the Fleet Reserve on 19 and 6 instead of an even 20 years?

Some one has been going around our ship with a printed handout sheet of unknown origin which states that it is advantageous to complete the full 20 years in order to guarantee retainer pay. It raises the possibility that if you were recalled to active duty after going out on 19 and 6, and had, in the meantime, become disabled so that you were unable to pass the physical, you might



THANKS—Argentine Navy interpreters and aides are gifted by CAPT R. T. Whitaker, USN, CO of USS Macon (CA 132), after visiting Buenos Aires.

lose your retainer pay.—J. A. M., YNC, USN.

• Whoever it was who was circulating that printed handout sheet, he's reached a new level in the misinformation department. Very few of his type reduce their scuttlebutt to writing.

National Holidays

SIR: Here's one for you and your staff to scratch your heads over:

On page 728, the 1959 edition of the *World Almanac* states that "There are no national holidays in the United States."

However, Article 2186 of *Navy Regs* is headed, "National Holidays." Can you explain this?

Who is wrong?—David C. Graham, SMC, USN.

• You're absolutely correct—the *World Almanac* does say that. And, our copies of Webster's Unabridged Dictionary and the *Encyclopaedia Britannica* also contain similar statements.

Because each state has jurisdiction over the holidays it will observe, there is, in a strict legal sense, no such thing as a national holiday. Nevertheless, in spite of this technicality, the holidays listed in Article 2186 of "Navy Regs" are observed in every state of the Union. (The only conceivable exception is November 11th — Veterans Day — which is an "optional holiday" in Oklahoma.) In our book, that makes them "national" in the sense that they fit the dictionary definition of the word, national, as—"common to the whole nation."

Anyway, no matter what you call it, a day off is a day off.—Ed.

Most of them rely on word of month to spread erroneous bits of information.

To clear this up once and for all (we hope)—a Navyman who enters the Fleet Reserve with 19 years, 6 months and 1 day of service is entitled to exactly the same benefits as those which accrue to one with 20 full years of service.

If you went into the Fleet Reserve on 19 and 6, and, upon subsequent recall you were found to be not physically qualified for active duty, you would be transferred to the retired list. Unless otherwise entitled to higher pay, you would, as a retiree, draw exactly the same amount as the retainer pay you had been drawing. Okay?—Ed.

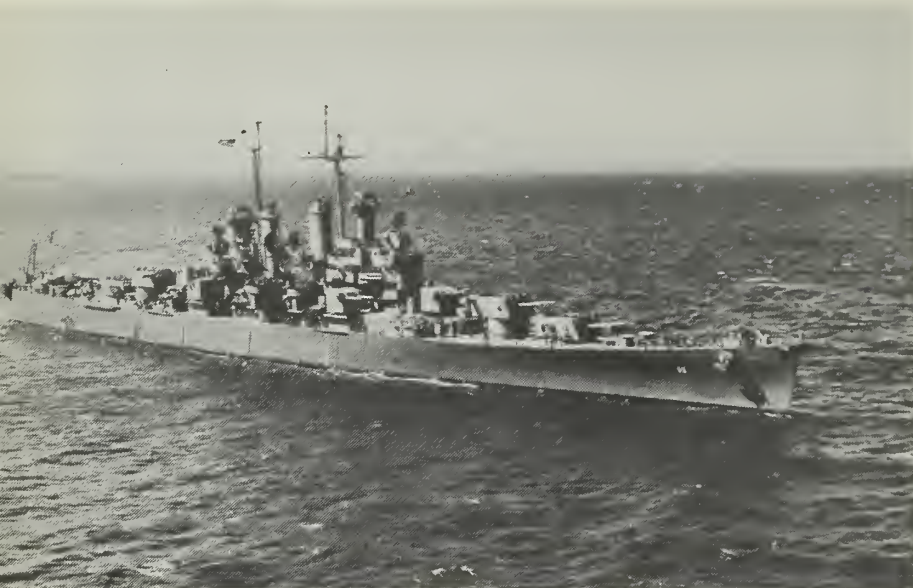
Period of Fitness Report

SIR: Will you settle a question for me regarding an officer's fitness report? If a lieutenant commander reports to a command for duty on 5 February, must the reporting senior submit a regular, semi-annual fitness report on him for the period ending 29 February, or does Article B-2203(4) 1. (b) 1, of the *BuPers Manual* give the reporting senior discretion in the matter and allow him to account for the 24-day period in the next regular Report of Fitness?

Some maintain that a report must be submitted, even though of a "not observed" type. Others say that the reporting senior has discretion in the matter. — G.S.Y., YNC, USN.

• The article in the "BuPers Manual" to which you refer gives a commanding officer the authority to extend a fitness report on either end of the reporting period by 30 days.

In the example you cite, the period from 5 February through 29 February may be included in the next regular report to the reporting senior.—Ed.



REMEMBER HER?—USS *Cleveland* (CL 55), vet of WW II, was in 19 shore bombardments and 14 invasions. Decommissioned since '47, she was sold this year.

Who Is Senior?

SIR: In our ship there has arisen a slight difference of opinion in interpretation of the *BuPers Manual* concerning the following question: Who is senior, an SOCA with two years in rate and 10 years' total service, or a BMCA who has just recently attained that rating, but who has 17 years' total service?

Furthermore, just what is meant by professional and military and non-military matters?—D. R. K., BM1, USN.

• The great debate concerning precedence and seniority as it applies to Navy enlisted men is as old, no doubt, as the Navy itself. It will keep popping up again from time to time, as long as there remains a Navy with at least two enlisted men holding conflicting ideas on the subject.

We've answered such questions many times in the past, and expect to be called upon to help arbitrate differences of opinion in the future—perhaps questions having to do with precedence under the polar ice pack, or seniority in space.

In any case, the answer remains the same today as it's always been. Most of the confusion arises over correct distinction between the two terms involved—precedence and seniority.

For example, compare the commanding officer of a coastal minehunter, let's say—probably a LT or LTJG of the Line of the Navy—with a Medical Corps Rear Admiral. Of the two, obviously the RADM (MC) is senior in grade or rank. However, should that RADM (MC) be temporarily attached to the MHC, he would take precedence in that ship after the commanding officer, as well as after the executive officer, in the execution of his duties as such.

The relative status of the two CPOs

you mentioned is defined by Article C-2103, "BuPers Manual," as follows:

• For military matters the BMCA takes precedence, and in such matters is considered senior.

• For non-military matters the SOCA takes precedence, since he has greater continuous service in pay grade E-7.

Now then, as to the distinction between military and non-military matters: Military matters are defined as those in which an individual may be required to exercise his authority over others. Some examples of instances in which the question of seniority, hence of responsibility and authority, might come up in the case of military matters are: Determination of the senior PO in a boat; assignment of a CPO Mess President; determination of the senior PO

among survivors of a distressed ship or a landing force; assignment of a section leader for a school class; assignment of Platoon Petty Officers in a landing force.

Non-military matters, on the other hand, are defined as those which involve privilege or honorary functions—ones in which no responsibility to exercise authority over others is involved. These might include: Preference in assignment of bunks in a bunkroom; preference in seating assignments at movies; preference for positions in a parade, procession, or at a funeral.

All clear now?—Ed.

Seniority After Broken Service

SIR: I have two SM3s in my division. One has broken service, but made his rate in 1957. The other man was rated in 1958.

I maintain the one with broken service is senior since he was rated first. Can you clear this up for me?—J. R. D., SM1, USN.

• It all depends on your interpretation of broken service. If the SM3 with broken service was affiliated with the Naval Reserve while he was out of the Regular Navy, he is senior and his date of rate goes back to 1957. Naval Reserve time, even though inactive, counts for seniority just as much as active duty.

On the other hand, if he had no naval affiliation whatsoever while he was out for more than three months, his precedence in pay grade would start with his date of reenlistment.

To cite a similar situation, personnel on the retired list or in the Fleet Reserve on inactive duty have no military authority in the Navy as long as they are on inactive duty. Yet these same persons are continuing to accumulate precedence for non-military matters, since they are still affiliated with the Navy.

Thus Fleet Reservists and retired personnel can take precedence over most active duty personnel when it comes to non-military privileges or at honorary functions.

If these Fleet Reserve or retired persons are ever recalled to active duty, they can count their inactive Fleet Reserve or retired time toward precedence for military matters.—Ed.

What About Whetstone?

SIR: Every time I read ALL HANDS, I look for USS *Whetstone* (LSD 27) somewhere, even on the last page, but not once have I seen her name.

I'm sure that all the officers and men will go along with me, that the *Stone* deserves some mention, especially for the way she has performed on this current cruise in the western Pacific.

To fill you in on a little of her background—she was commissioned in 1946, too late to participate in World War II, but nevertheless, not too late to show herself as a "fine lady of the Fleet."

Reporting Time on Transfer

SIR: When a man is transferred to another station in the immediate vicinity of the transferring activity, what "Report not later than" time and date should be entered on the Standard Transfer Order.

I say it should read "Immediately," or at least within two hours. However, another yeoman here claims that it should properly be designated as 2400, date of transfer.—D.R.B., YN1, USN.

• You're both right, because there is no hard and fast rule in such cases.

Since no travel time is involved, it's up to the commanding officer of the detaching activity. He may designate any time for reporting up to 2400 on the day of detachment, which is considered a day of duty.—Ed.

After working hard for two years, she was decommissioned in 1948.

When the Korean conflict broke out, *Whetstone* was called back to active duty and participated actively in that hassle. She was the first ship to salvage a downed MIG aircraft.

In 1953, *Whetstone* rescued nine Japanese fishermen from an overturned boat in heavy weather. In 1954 she evacuated civilians from north and central Viet-Nam. For this she was awarded the Viet-Nam Ribbon of Friendship.

Since 1954, *Whetstone* has been more or less on the sidelines so far as news is concerned, but she has contributed greatly to the stability and dependability of the Amphibious Force, U. S. Pacific Fleet.

However, in January 1959 *Whetstone* was called on to perform what seemed an almost impossible task, ferrying a 1485-ton dredge, *uss Norfolk* (YM 22), from Subic Bay, Philippines to Tsoyien, Formosa. The YM was 220 feet in length, 42 feet at the beam, and 65 feet high at the top of her spud frame; it had a 10-foot three-inch draft forward and a nine and one half foot draft.

Perhaps this may have been the largest load ever carried by any LSD or for that matter, by any ship. Am I right?

Sure, she is a slow and odd looking ship, and maybe there are cruiser sailors or carrier sailors who laugh when they see her, but all of us who know her are immensely proud of *Whetstone*.—Gerald F. Dinda, PN2, USN.

• *It looks as though you have been so busy doing your part to make Whetstone a smart ship that you haven't had time to read back copies of ALL HANDS. If you did, you'd know that we don't have the time or the staff to cover the activities of every ship and activity in the Navy. Thus, we are dependent to a large extent on material*

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, *ALL HANDS* Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *uss Indianapolis* (CA 35)—A reunion will be held on 29, 30 and 31 July in Indianapolis, Ind. For details, write to Dr. Giles C. McCoy, Boonville, Mo.

• *uss New Mexico* (BB 40)—The third annual reunion will be held at the Lafayette Hotel, Long Beach, Calif., on 2 July. For further information, write to D. J. Cady, 632 Roycroft Ave., Long Beach, Calif.

• *Carrier Air Group 83*—A reunion for the 1944-46 "alumni" is being planned. Write to Jim Beaumont, 516 N. Arbogast, Griffith, Ind.

• *uss Henrico* (APA 45)—A reunion of World War II personnel is planned. Write to J. Chiarini, 1721 76th St., Brooklyn 14, N. Y.

• *uss Taconic* (AGC 17)—All crew members who served from 1952 to 1957 and who are interested in holding a reunion with time and place to be decided may write to Charles W. Gabriel, 235-A Monitor St., Brooklyn, N. Y.

• *uss J. Fred Talbott* (DD 156)—A reunion is being planned for July or August, to be held in Washington, D.C. For more information, write to Vincent J. Colan, 10421 Gary Rd., Rockville, Md.

• *VA-214*—All who served in VA-214 or VF-214 who are interested in holding a reunion in San Francisco during the summer of 1960 may write to Lee Blessing, 5144 Wild Horse Valley Rd., Napa, Calif.

from voluntary contributors such as you who are proud enough of their ship to tell us about it. If you have seen no mention of Whetstone—or any other ship—don't blame us. Inquire around and see if anyone has taken the trouble to pass the word to us.

One further word, however. Don't just tell us that you're proud of your outfit. Most men are. Tell us why you have reason for your pride. If it seems to be of interest to other Navymen (and if we have the space), we'll be happy to tell the Fleet.—Ed.

Question on Advancement

SIR: I have a question concerning personnel in the naval aviation cadet program who are former rated person-

nel. Take the case of an SK2 in flight training at Pensacola, Fla. Before becoming a NavCad, he had already passed the examination for SK1, and was to be advanced on 16 Dec 1959.

If he should be washed out of the aviation cadet program, would he be reverted to SK2 or SK1?—E. L., YN1, USN.

• *If he is dropped from the NavCad program, he will revert to SK2, the same rate he held when he entered flight training. Since he has already successfully competed for SK1, however, he may then request authority from the Chief of Naval Personnel to be advanced to SK1. If he is still qualified, the Bureau would probably authorize his advancement.—Ed.*

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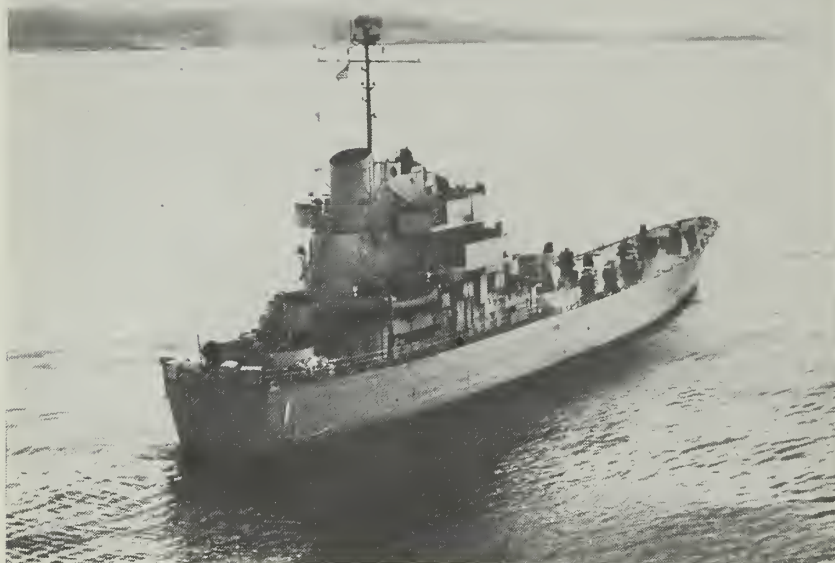
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SACK TIME — Navy's only inshore fire support ship, rocket-firing *USS Caronade* (IFS 1) is slated for mothballing and a rest with the Reserve Fleet.

Contract for New *Terriers*

A contract for \$25.2 million has been awarded for additional production of advanced *Terrier* guided missiles.

The newest version in the *Terrier* series will intercept any present-day supersonic aircraft many miles from its intended target. Like the original *Terrier*, the new weapon is a supersonic guided missile, powered by two stages of solid fuel rockets. The first stage, a separate booster rocket, supplies high thrust for a short time to launch and accelerate the missile. When the booster burns out, the booster shell falls away and the second stage ignites. The second stage, called the sustainer, maintains supersonic flight velocity of the missile as it continues to the target.

Flight-ready *Terrier* missiles are contained in large, automatic load-

ing magazines aboard Navy guided missile ships. The loading mechanism moves the missile-booster combination into position and rams it onto the launcher. A salvo of two *Terriers* may be fired at rapid intervals from each launcher.

The Navy's first guided missile frigate, *uss Dewey* (DLG 14), which was commissioned at the Boston Navy Yard on 7 Dec 1959, will be the first ship armed with the advanced *Terrier*. Two conventional carriers, three guided missile cruisers and 19 additional guided missile frigates will also be equipped with this guided missile. The weapon is being installed in *uss Long Beach*, CG(N) 9, and *uss Bainbridge*, DLG(N) 25. Advanced *Terrier* will replace the original version of the missile in existing shipboard magazines and depots.

Two New Fleet Commands

Two new Fleet commands and a new auxiliary naval air station have been placed in commission.

The Navy's ASW efforts in the Pacific were bolstered with the establishment of the Antisubmarine Defense Force, Pacific, commissioned on 1 March. Assuming command ASDEFORPAC was VADM John S. Thach, USN, who formerly commanded ASW Task Group Alfa in the Atlantic Fleet.

The headquarters for ASDEFORPAC are located at Ford Island, Pearl Harbor.

The second of the new Fleet commands established was Submarine Flotilla Two, with headquarters at Norfolk, Va. This command takes in Submarine Squadrons Six, Four and Twelve, based at Norfolk, Charleston, and Key West, Fla.

CAPT J. W. Williams, USN, assumed command of the new submarine command aboard his flagship, the submarine *uss Requin* (SS 481) on 1 March.

Just four days after ASDEFORPAC and SUBFLOT Two went into business, the newly completed Naval Auxiliary Air Station at New Iberia, La., was officially commissioned during ceremonies in which ADM Arleigh Burke, USN, the Chief of Naval Operations was the principal speaker.

This new NAATC support facility—used for training ASW pilots in the use of the multi-engine S2F *Tracker*—is commanded by CDR Roderick O'Flaherty, USN.

Whirlybird Sweepers

Helicopter minesweepers may some day replace surface minesweepers. The helicopter, unlike the surface minesweeper, is not vulnerable to the mines being swept.

During a recent demonstration at Panama City, Fla., a twin-engined helicopter lowered new lightweight minesweeping gear into the water, towed it, and then retrieved it.

In another phase of the demonstration, conventional minesweeping gear that was being towed by the minesweeper *uss Venture* (MSO 496), was picked up and towed by one helicopter, transferred

YESTERDAY'S NAVY

On 7 May 1774 Commodore William Bainbridge was born in Princeton, N. J. On 7 May 1934 *uss Constitution* (Old Ironsides) returned to the Boston Navy Yard after three-year tour of large U. S. seaports, during which she traveled more than 22,000 miles. On 13 May 1862 the town of Natchez, Miss., was occupied by the Navy. On 27 May 1813, Fort George, on the Canadian side of the Niagara River, was captured in a joint Army-Navy operation. On 27 May 1944 U. S. forces landed on Biak, off New Guinea.



to another one, and finally returned to the minesweeper by the second chopper. The transfers were made by using hooks extended beneath the helicopters.

The Navy's experimental use of helicopters as minesweepers dates back to 1952. Various Navy helicopters were evaluated as minesweepers and a number of new tactical and operational techniques were developed. The HSS-1, the Navy's standard antisubmarine warfare helicopter, was selected for further testing since it appears best suited for towing minesweeping gear.

The need for this type of minesweeping equipment was shown during landings at Wonsan, Korea, in 1950. The harbor area had been heavily mined, and two minesweepers were lost within minutes after they entered the harbor area. Hence, the entire task force milled around outside Wonsan Harbor for over a week while an approach was cleared to the beachhead. In this operation a helicopter was used to spot the mines.

Russians Rescued by Carrier

Four Russian soldiers, adrift in a 50-foot landing craft for 49 days, have been rescued by the aircraft carrier *USS Kearsarge* (CVS 33) about 1000 miles west-northwest of Midway Island in the Pacific.

The four soldiers were exhausted and emaciated when brought aboard the carrier. The Russians had been adrift in the LCM-type boat since it was crippled in a storm off Etorofu Island in the Kuriles, just north of the Japanese Island of Hokkaido.



SPEAKING OF TROPHIES, these were won by drill team from ET School, Treasure Island, in just four months.

They had drifted about 1000 miles.

During the 49 days, the soldiers had only three cans of jerky (dried) beef and one loaf of bread. The only water they had was gathered from rainfall. Each man lost from 35 to 40 pounds.

When the crippled boat was sighted by a *Kearsarge* lookout in fading twilight, the four occupants, wearing green uniforms with red stars on their caps, were huddled on the raised afterdeck of the boat. The well deck was flooded with from two to three feet of water.

Although none of the soldiers spoke good English, they were able to identify themselves and to give a brief account of their ordeal.

They said that they had sighted ships three times but each time the

ships failed to see them. The Russians had no means of communications aboard the small craft.

Hancock Claims a Record

Records aren't records long aboard the 45,000-ton attack aircraft carrier *USS Hancock* (CVA 19) now operating in the Pacific. Take the following for example.

Recently a ship's record of 245 jet aircraft landings in one day were made aboard by pilots of Carrier Air Group eleven.

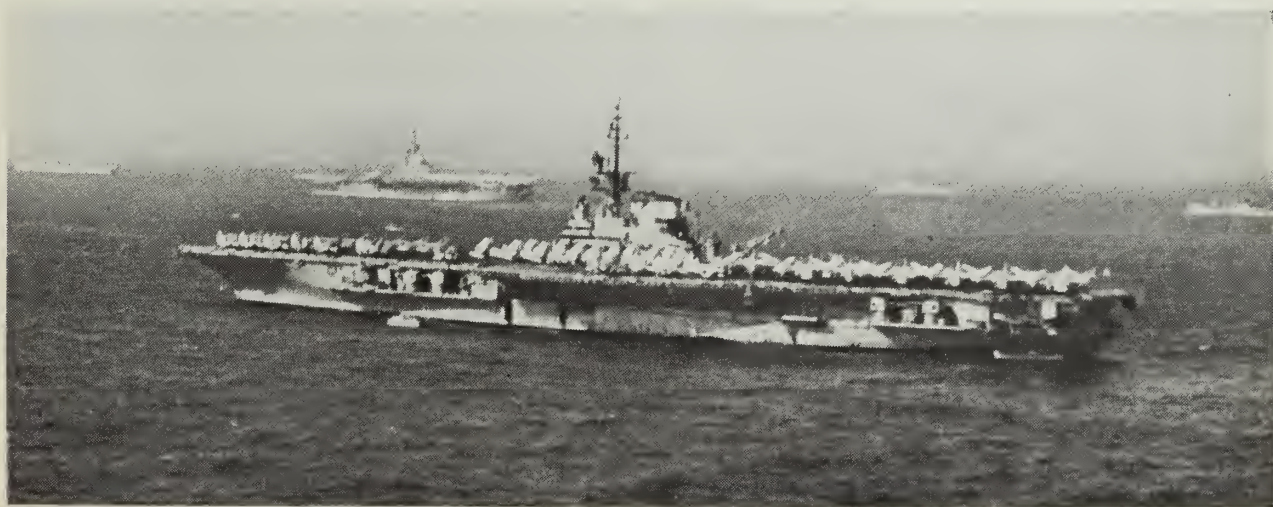
Almost perfect weather helped *Hancock* set this new high. The ship was able to steam in a full 360-degree circle during the entire day. Not once was it necessary for the ship to stop air operations and hunt for wind. Flight operations were stopped once when one plane developed a damaged landing gear. The commanding officer also ordered two 20-minute coffee breaks during the day. When the last plane landed aboard that night the new record was in the books.

After a weekend of liberty, the carrier again set sail from the Naval Air Station at Alameda to resume operations off the coast of California.

Once in the operating area, flight operations were again started. This time not a single mishap was recorded. During 10 hours of flight operations on that day 260 landings were made—another new high for *Hancock*.

In setting these new records, *Hancock* men claim that each operation was done methodically, with safety uppermost in mind, and with no atmosphere of record breaking.

IN THE MED—*USS Franklin D. Roosevelt* (CVA 42) rests near *USS Essex* (CVA 9) (background) off shore of Sardinia.





BAG TAGGED—Navy's newest and largest airship, ZPG-3W, is moored to mobile mast at NAS, Lakehurst, N. J., as another airship rests in background.

Mobile Mooring Mast

The mooring mast for the Navy's newest and largest airship, the ZPG-3W, has undergone a series of tests and evaluation by the Airship Test and Development Department at NAS Lakehurst, N. J.

This mobile airship mooring mast consists of a tractor propelled pyramidal steel structure that is used to hold and tow airships. It is constructed so it can be readily disassembled and transported for use anywhere in the world.

The mast is equipped with controls which operate a constant tension winch for hauling the airship to the mast; lights for nighttime operations, and a hydraulic control for changing the height of the mooring to accommodate smaller sized blimps.

Another component of the mast is an electrical power unit which provides servicing for the airship's electrical equipment. The power from this unit is transmitted to the airship car via a slip-ring and brush assembly which is located near the top of the mast. This allows continuous electrical transmission while the blimp weathervanes freely on the mooring circle around the mast.

The mast is propelled by a tractor similar to a standard commercial vehicle that is used to transport earth-moving equipment.

Rocket Tests at Pt. Mugu

In the January 1960 issue, ALL HANDS chronicled the rapid growth of the Naval Missile Center, Point Mugu, Calif., as the center of a rocket and missile testing complex known as the Pacific Missile Range. Now, we'd like to tell you about one of the many tests currently being conducted there.

Actually a series of six high-altitude rocket probes under the auspices of the Atomic Energy Commission, the present shots are referred to as HAS (High Altitude Sampler) tests.

The first test, already successfully completed, was a two-stage shot which reached an altitude of 250 miles. Remaining probes are all scheduled to be of the three-stage variety.

Objectives of this series of tests are four-fold. Briefly, they are:

- To fire instrumented payloads more than 200 miles into the ionosphere.
- To evaluate the performance of those instruments.
- To obtain high-altitude atmospheric data.
- To determine the ballistic performance of the three-stage rocket, and to investigate the possibility of using a single trajectory determination station instead of the dual stations now being used.

The three-stage HAS vehicle has

a theoretical range of some 400 miles, and a theoretical altitude of more than 240 miles. The three stages over-all total 25 feet 4 inches in length and 1 foot 9 inches in diameter, and have a total fueled weight of 3154 pounds. Maximum velocity is 7600 feet per second, and axial acceleration is 32.5 G's (32½ times the force of gravity).

In physical make-up, the three stages look like this:

First stage—An M-5 JATO (Nike). Completely assembled it is 11 feet 2 inches long, and weighs 1425 pounds.

Second stage—Consists of six Viper rockets clustered around the third stage motor. This stage fires in two sequences of three Vipers each. Each rocket burns for 5.6 seconds, and develops 5400 pounds of thrust. Individual Vipers are 8 feet 11 inches long, and weigh 190 pounds. Collectively they form a stage 11 feet 2 inches long weighing 1352 pounds.

Third stage—Made up of one Viper rocket and the nose cone housing the instrument payload. Assembled weight is 377 pounds, and over-all length is 13 feet 3 inches.

The payload itself is 110 pounds of instruments and recovery equipment. It includes the necessary instruments to provide telemetry data on acceleration, pitch, yaw, roll, vibration, angle of attack, fin strain and internal and external pressures.

Recovery aids carried within the payload package are an eight-foot parachute (gray if reflective, orange and white if non-reflective), a clear plastic inflatable bag, and a dye marker.

In addition the C-band beacon and telemetry transmitter, while primarily data-collecting instruments, act as essential recovery aids once the payload begins its descent.

Descent and re-entry into the atmosphere is aided by drag flaps, which extend from the second stage at the moment of payload separation. An automatic pressure switch opens the parachute when the nose cone has dropped back down to between the 15,000- to 10,000-foot level. The plastic bag is cubical, and is designed to hold the payload on the ocean's surface once it hits the water.

Immediately after launching of an HAS probe, search and recovery groups go into action. The Recovery On Scene Commander (OSC) is

aloft in a WV-2 Patrol plane. All ships and aircraft obtain bearing information and proceed to the estimated impact point. Aircraft attempt to sight the package while it is in the parachute descent phase, which lasts about five minutes.

After initial sighting the aircraft maintains visual contact, dropping smoke lights and sonobuoys as necessary. Ships proceed to the impact point guided by circling planes or fix information from shore units and cross-bearing plots aboard the aircraft.

In the event the payload has not been sighted by or before impact time, an immediate sea search is begun. Primary units are aircraft, with the OSC coordinating the search from his plane. The dye marker becomes of extreme importance in a sea search, since the only visible object to searchers is a portion of the two-foot square plastic bag, and perhaps the parachute.

News From the Fleet

As the Navy went about its business:

- Helicopter Antisubmarine Squadron Four has deployed to the Western Pacific aboard *uss York-*

town (CVS 10) to relieve *HSRON Six*.

- *uss Toledo* (CA 133) is undergoing inactivation at the Long Beach Naval Shipyard. Her place in the Cruiser-Destroyer Force, Pacific Fleet, will be taken by *uss Providence* (CLG 6) recently converted to a guided missile light cruiser.

- *uss Piedmont* (AD 17) and *Hooper* (DE 1026) took on an extra load of some 28 tons of food, clothing and equipment for the needy of Asia before they departed San Diego.

- Approximately five years have been added to the life of *uss Turner* (DDR 834) now undergoing a face-lifting at the New York Naval Shipyard under the FRAM (Fleet Rehabilitation and Modernization) program.

- While on a Seventh Fleet training mission, *uss John S. McCain* (DL 3) rescued the entire 41-man crew of a Japanese freighter some 200 miles southwest of Okinawa, her fifth rescue operation within the past year.

- Following the custom of submarines, *uss Jarvis* (DD 799) has

appointed Seburn J. Jones, BMC, USN, "Chief of the Ship."

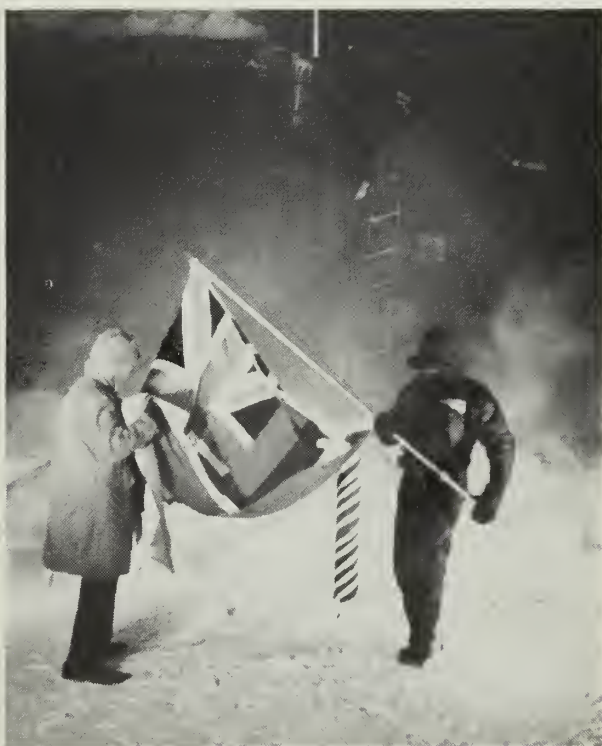
- The "Constant Vigilance Award" granted to radar picket escort vessels for demonstrating outstanding operational efficiency while manning the Atlantic extension of DEW Line, has been awarded to *uss Roy O. Hale* (DER 336).

- After viewing Imabari, Shikoku, Japan, from a distance for several years while en route from Sasebo to Kobe or Yokosuka, crew members of *uss Woodpecker* (MSC 209) and *Widgeon* (MSC 208) finally had an opportunity to visit the town during a recent good-will tour.

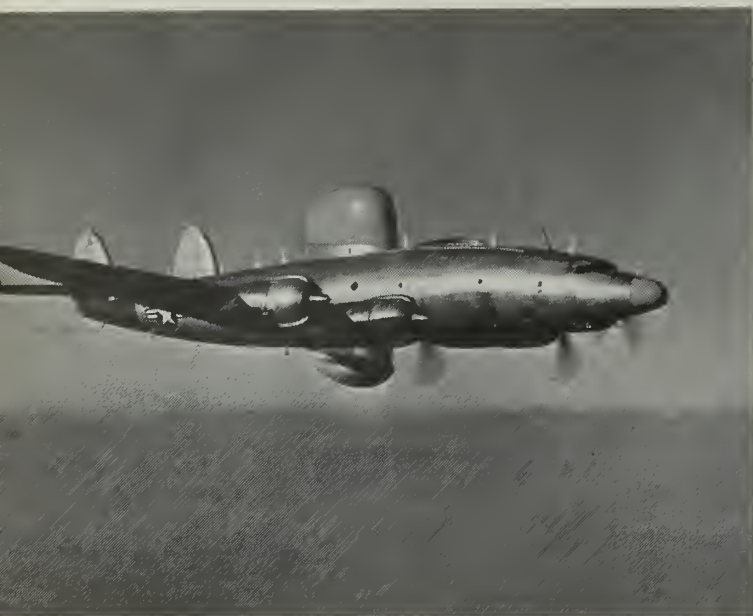
- *uss Hall* (DD 583) is now known as *HHMS Lonchi* (D 56) following transfer to the Greek nation under terms of the Military Assistance Program.

- Herbert H. Hochwarth, AT1, has been selected as the enlisted "Instructor of the Year" for 1959 at the U. S. Naval CIC School, NAS Glyncro, Brunswick, Ga.

- *uss Sealion* (APSS 315) relieves *uss Haddock* (SS 231) at Portsmouth, N. H., as a Naval Reserve Training Ship.



BOTH ENDS—Hawaiian spirit was felt at both ends of the globe as Navymen from 50th State raised its flag at North and South Poles. Rt: LT F. L. Wadsworth and H. Meyer, IC1, erect flag at North pole during cruise of *USS Sargo*, SS(N) 583. Left: D. Doyle, RM1, hoists flag brought to Antarctic by ADM Hopwood last winter.



CREW MEMBERS of radar picket ship send out a liferaft to "rescue" Navymen on ditching plane during training.



Building a Picket Fence over the Ocean

THERE'S A TEAM of Navymen based in Hawaii that provides an invisible picket fence against possible enemy attack on the 50th state as well as on the west coast of the United States. The team is made up of ships and planes of the Pacific Barrier Command which keeps a continuous vigil between Midway and the Aleutian chain of Alaska.

The modified *Constellation* planes that fly the picket are kept in tiptop shape by their ground crews but there is still the chance that some emergency might arise and the plane would have to be ditched. With this in mind the radar picket ships sail-

ing below have worked out a plan.

Should a "Mayday" ever come in on the radio, the men of the ship spring into action. While a crew on the fantail spreads a 2500-yard layer of fire foam upwind on the ocean, another group prepares to lower a rescue craft. After the foam "runway" is spread, the ship swings in a 180-degree arc to come back to the centerline. A boat is then lowered to pick up the 24 crewmen of the plane.

At night the procedure would be much the same except lighted flares would be positioned to guide the plane in ditching.

FOAMY WAKE—USS *Haverfield* (DER 393) lays down an emergency runway of fire-fighting foam from fantail.





AIRBORNE TOO—Marine boosted rocket artillery weapon is transported by MR2S copter and right readied for action.



Big Western Six-Gun for the Marines

THE MARINE CORPS has a new weapon that operates like a western six-gun, but it's new in concept and far more potent. It is an automatic field artillery piece, the 115mm boosted rocket XM-70, that can deliver shells at the rate of six rounds in two-and-one-half seconds.

This automatic weapon now in advanced research and development stage is lightweight and can be airlifted by helicopter. The Marine Corps considers this new artillery piece the most significant improvement in conventional artillery in our country since 1940.

Capable of delivering single-shot as well as automatic fire, the XM-70 operates on the boosted rocket principle. Automatic firing is accomplished with two clusters of three breech tubes each, mounted side by side. Each cluster revolves, like the cylinder of a six gun, moving around into position for firing through a single-mounted launching tube.

The XM-70 weighs only 3000

pounds and is effective at greater ranges than the 105mm howitzer that it was designed to replace. It is capable of firing direct as well as indirect close support missions. The gun is easy to handle and can be towed by a lightweight vehicle.

The 115mm boosted rocket round can be equipped with a point-detonating or proximity fuze and its high explosive warhead is effective against mechanized forces and similar artillery targets. The boosted-rocket principle, with light initial firing charge, permits lighter construction of the launching hardware. Conventional artillery requires heavy tube and over-all construction to withstand the great pressure caused by the detonation of propellant charge.

The Marine Corps plans to have its first XM-70 battery in the field, equipped with six launchers, by February 1962. Eventually it is planned that the 115mm boosted rocket will replace the 105mm how-



FAST-FIRING artillery weapon is tested by Marines at Quantico, Va.

itzer and 4.2 mortar in artillery regiments of the Corps' three divisions.

Thus far, the XM-70 has successfully completed road tests, tests for helicopter transportation, firing and cold weather tests. In addition, it passed its amphibious work out on the beach at Camp Lejeune, N.C. Even though it has fired over 1500 boosted rocket rounds, the new weapon will undergo more tests and development until it joins the Corps.

FIRE ONE—Gun crew drills with new XM-70 artillery piece that can fire six rounds in two-and-one-half seconds.





HAPPY HOUR—Young Koreans hold concert for crew of *Helena* (CA 75).

Miniature Korean Band Plays for Navy at Chinhae

A group of Korean youngsters pulled a switch on Navymen aboard the heavy cruiser *uss Helena* (CA 75). Instead of the usual Navy band concert and entertainment provided for visiting small fry, the youngsters put on their own show, including a small-sized orchestral concert.

Helena was visiting the city of Chinhae, Korea. During the two days there, about 1100 Republic of Korea Naval, military and civilian guests toured the ship.

Among them were about 40 seven-year-old children from the Chinhae school. When the children arrived aboard wearing multi-colored Korean costumes they were

taken on a tour of the ship and were then served refreshments. Then they returned the welcome.

First on the program were the youthful dancing girls—seven-year-olds who performed on the ship's fantail. The group brought their own music along. The orchestra, led by a small Korean boy, played several native songs on "custom built" instruments.

Other entertainment in which the crew participated during its visit at Korean port included volleyball, basketball, and softball games between the ship's team and teams from the Republic of Korea Navy, and the U. S. Naval Advisory Group stationed there.



TURN ABOUT—After tour of cruiser, school children of Chinhae, Korea, pulled a switch and entertained their host with native dances and music.

Donations to Turkish Karathon

Some 200 Turkish children in Istanbul are now drinking milk every day (and will continue to do so until the end of this year), thanks to a handful of U. S. Navymen.

The American Navymen stationed at Karamursel, Turkey, raised the money for the nearly two tons of milk powder by holding a "Karathon." Their small, closed-circuit radio station operated for 115 hours without stopping.

An anonymous donor who agreed to match the first \$100 collected got the fund drive off to a good start. When the drive ended the U. S. Navy group had \$550.

The milk powder given by the Navymen is being distributed to the Koca Mustafa Pasa Children's Home (50 children); Eyup, Alemdar and Kilical Nursing Centers (140 children), and Bakirkoy Hospital.

In addition to the gift of milk to the Child Welfare Society, the American Navymen plan to give one year's supply of milk powder to a primary school in Kocaeli province, a primary school in Yalova, a girl's orphanage at Bebek, a boy's orphanage at Sulh Hospital in Sisli, and the Old Folks Home in Istanbul.

36,000 Tons in Tow

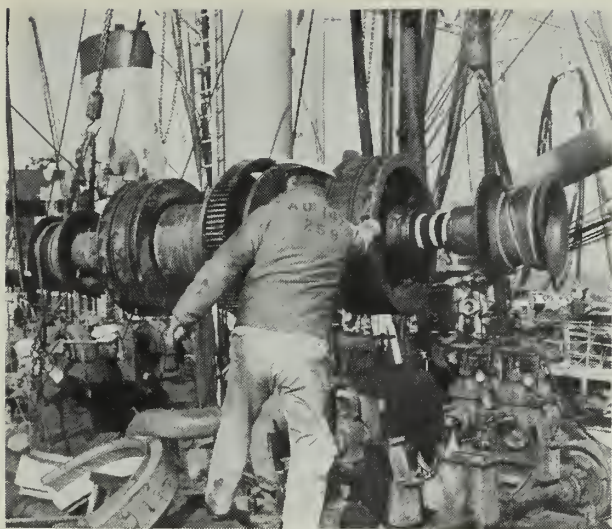
Towing outsize loads is only SOP for Navy Fleet tugs—but the skipper of the 1600-ton *uss Paiute* (ATF 159) could easily have been forgiven a few misgivings about a job he was sent to do this past spring.

It turned out to be one of the heaviest ocean tows on record.

Paiute steamed out to St. Johns sea buoy, outside the St. Johns River entrance to the Mayport Carrier Basin on Florida's northeast shore, and took in tow the disabled 36,000-ton supertanker *ss Esso Argentina*.

The tanker, loaded with 13 million gallons of Venezuelan oil and bound for Havana, Cuba, had broken down off the coast of Cuba. A sister ship, *ss Trinidad*, towed her to Mayport, the only harbor south of Norfolk deep enough to accommodate her.

The two big tankers couldn't negotiate the river entrance together, however, so *Paiute* got the call. Three miles later, safe inside Mayport Basin, she released her tow to be moored by 10 harbor tugs. *Argentina's* cargo was shifted to *Trinidad*, lightening her enough to be towed up-river to a shipyard in Jacksonville.

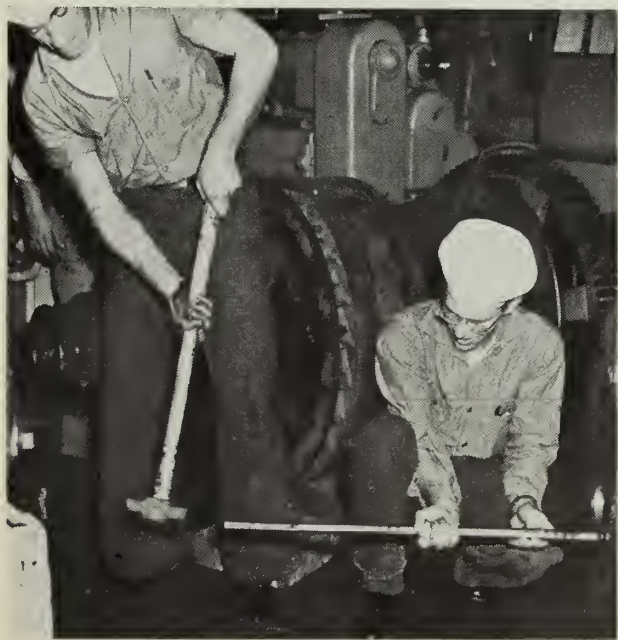


Repair Ship

SERVICE SHIPS of the Fleet perform a great variety of tasks but all have the same objective, that of keeping Navy ships and their crews in top condition. One such ship is *uss Tutuila* (ARG 4). This internal combustion engine repair ship with her highly skilled crew is ready to repair anything from giant diesel engines to tiny gauges and meters in her repair departments' many shops.

These shops include the internal combustion engine repair shop, the main battery of *Tutuila's* repair facilities. In addition the ship has sheet metal, shipfitting, pipe, carpenter, machine, refrigeration, engraving, print, typewriter, diving and salvage, electrical, electronics and gyro shops. Here members of *Tutuila's* machine shop go about a routine chore of overhauling and repairing a deck winch from Fleet oiler *uss Truckee* (AO 147).

BUSHED—*Tutuila* repairmen remove bushings from drum.



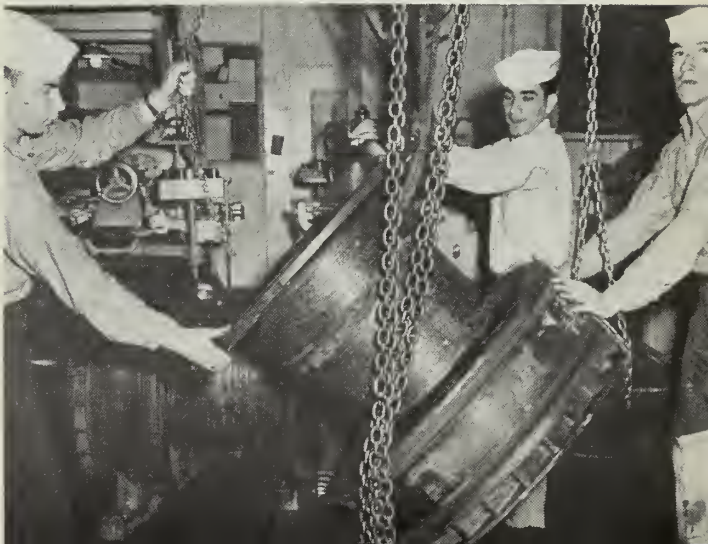
MAY 1960



BACK AGAIN—Winch assembly is returned to oiler and (rt.) swings high as it is hoisted aboard *Tutuila* for repair.



INSIDE JOB—Winch assembly is lowered into machine shop and (below) cable drum is removed from its shaft.



Brief news items about other branches of the armed services.

THE AIR FORCE will proceed with the development of its air-launched ballistic missile, *Sky Bolt*, the GAM 87-A.

Sky Bolt is a two-stage solid-propellant missile capable of hypersonic speeds, and ranges up to 1000 miles. It will be launched from strategic bombers.

The bomber-missile combination is expected by the Air Force to provide the nation with increased mobile striking power.

★ ★ ★

A "ROTATABLE DUCTED-FAN" AIRPLANE, developed for Army use, has been test-flown successfully.

Known as the VZ-4DA VTOL (Vertical Take-Off and Land), the plane can rise, hover or settle in helicopter fashion, or it can fly straight ahead at high speeds, as conventional fixed-wing aircraft do. In tests at Edwards Air Force Base, Calif., the plane successfully made the transition from vertical to horizontal flight and back to vertical flight again. The conversions were accomplished in flights from the ground and at altitudes between 3000 and 6000 feet. At all the test altitudes the plane hovered steadily in a stationary position, then returned to normal flight.

The plane is propelled by fans which are mounted in ducts on the wing tips. The ducts can be rotated through 90 degrees. Pointed straight up, the ducted fans provide lift which enables the aircraft to take off or land without a runway. After take-off, the ducts are rotated full forward for horizontal flight. For a vertical landing, the ducts are rotated back to the up position.

With its ducts kept in the forward position, the VZ-4DA can make conventional take-offs or landings on a regular airstrip. Setting the ducts at an intermediate angle permits short-run take-offs or landings. In forward runway take-offs the aircraft's load ability is better.

The test plane is powered by a single 840-horsepower shaft turbine engine mounted in the fuselage behind tandem seats for pilot and observer.



FOUR IN ONE—Army's M-14 automatic rifle will replace M-1 rifle, BAR, carbine, .45 calibre sub-machine gun.



LOOKING UP—Air Force B-52 eight-jet bomber flies overhead with air-to-ground Hound Dog missiles on wings.

USCG ICEBREAKER EAST WIND (WAGB 279) has returned from Antarctic with the most unusual cargo it has ever carried—two seals, aged 2000 years.

Each year a limited number of these naturally mummified seals are returned from Antarctica for advanced research and museums. This year's cargo was delivered to the Texas Technological College at Lubbock, Texas.

It is believed that the mummified seals wandered too far inland and died from lack of food and have been encased in ice from 1600 to 2600 years. They were located in the McMurdo Sound Area.

★ ★ ★

THINGS ARE CONSTANTLY getting better for the Army's foot soldiers.

Two new mine-planting aids have relieved them of the back-breaking task of digging holes for planting land mines.

Using hand tools, the average soldier took about five minutes of steady digging to do the job while the new efficient mechanical aids do it better in 20 seconds.

One of these "dream machines" consists of a dozer-mounted mine-laying scoop, while the other is an earth auger mounted on a truck or jeep.

The dozer-mounted scoop digs an average of 11 holes a minute on a straight run, at spacings about 18 feet between holes. The earth auger can drill a hole for a land mine in approximately 20 seconds in average tillable soil.

Both of these new mine-planting aids were developed by the U.S. Army Engineer Research and Development Lab, Fort Belvoir, Va.

★ ★ ★

THE SONIC BOOM, which has created so much trouble, is finally being put to good use.

In response to a request from the National Park Service, the Air Force is putting the sonic boom to work against accumulations of snow and ice in Glacier National Park in an effort to induce avalanches.

Each winter overhanging snow and ice threaten to bury Going-to-the-Sun Road—a seven-mile highway cut into the side of Glacier's famous Garden Wall Gorge.

If avalanches can be induced and controlled by sonic

booms the number of accidental avalanches should be greatly reduced. The success of this operation, dubbed "Safe-Slide" will be of interest to other snow-locked areas of the world.

The sonic bombings (or boomings), which began in January, continued periodically through April to prevent ice and snow from accumulating.

F-106 *Delta Darts* flying out of Seattle, Wash., are being used to boom the target areas at speeds of more than 750 miles per hour.

★ ★ ★

THE U.S. ARMY is making its own diamonds. These are not, however, the kind known as a girl's best friend. They are made of common graphite and are being developed for possible use in electronics systems of rockets and other devices where high temperatures develop.

Scientists of the Army Signal Corps Research and Development Laboratory, Fort Monmouth, N. J., developed the synthetic diamonds as part of a program which seeks new electronic materials.

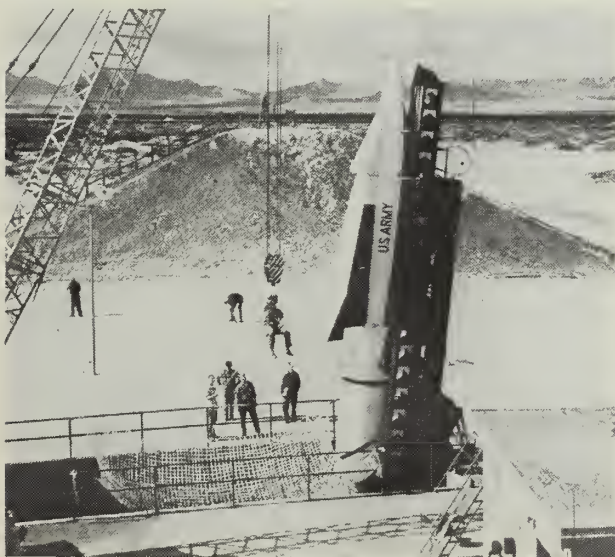
To make a synthetic diamond, a pellet of graphite about three-sixteenths of an inch in diameter is placed in a bore of a heat-resistant mineral cylinder with an outside diameter of about half an inch.

Metal pellets, which react with the graphite under heat and pressure, are pushed snug into each end of the bore and metal disks placed on top.

This small container is then placed in a two-stage pressure chamber and put under 1,250,000 pounds of pressure per square inch at temperatures up to 3000 degrees Fahrenheit.

After the sample has been removed from the press and cooled, acid is used to dissolve the metal. The unconverted graphite is then removed, leaving a synthetic diamond.

X-ray analysis of several hundred diamonds produced in this way indicate a similarity to real diamonds. The largest crystals so far produced are about one-sixteenth of an inch long. Industrial diamonds have been pro-



FUTURE PROTECTOR—Antimissile missile Nike-Zeus, now in research and development stage by Army, set for test.



DIG THIS—Army engineers dug this area near Denver, Colo., in building underground USAF *Titan* missile sites.

duced by commercial companies for several years.

Army scientists pointed out that pure diamonds are poor conductors of electricity in the ordinary sense. However, these characteristics can be modified in synthetic diamonds.

★ ★ ★

THE AIR FORCE is conducting tests with an experimental low-drag covering on its *Thor* IRBM.

This lightweight cone-shaped structure—which increases the over-all height of the *Thor* by some eight feet—is designed to cut drag on the *Thor's* blunt, heat-sink type re-entry vehicle.

The missile is powered by a modified liquid fuel engine being developed to increase the *Thor's* versatility as a space booster.

The streamlining structure, or fairing, is being used to cut some of the drag created during early flight through the atmosphere by the *Thor's* normal blunt-nosed shape.

★ ★ ★

A HIGH-ALTITUDE TEST CHAMBER that will aid in advancing the national space program has been put into operation by the Army.

Located at the U. S. Army Signal Research and Development Laboratory, Ft. Monmouth, N. J., the new chamber duplicates conditions met by missiles and satellites 100 miles above the earth.

The new test chamber, a stainless steel cylinder eight feet long and five and a half feet in diameter, provides the means to insure, before launching, that equipment and components have been engineered to retain their operating stability.

Although many satellites and missiles go farther into space than 100 miles, many conditions are the same at the higher altitudes as they are in the virtually air-free environment found in the ionospheric zone which the chamber simulates.

A refrigeration system and an array of infrared heat lamps make it possible to vary test chamber temperature from 90 degrees below zero to 300 degrees above.

THE WORD

Frank, Authentic Advance Information On Policy—Straight From Headquarters

• **WW II GI LOANS**—If you are planning to apply for a home, farm or business loan under World War II GI Bill, you will have to move fast, as time is getting short.

Under present law, 25 Jul 1960 is the cut-off date set for World War II GI loan provisions.

Veterans who submit their applications on or before the deadline, will be allowed an additional year (until 25 Jul 1961) in which to have the loan processed and actually closed.

It must be stressed that these dates DO NOT apply to veterans of the Korean conflict. They have until 31 Jan 1965 to make GI loan applications.

World War II veterans who also served during the Korean war are considered Korean veterans for the purpose of GI loans.

Under the GI loan program, qualified veterans are offered the opportunity to obtain VA guaranteed or insured loans to (a) purchase, build or improve a home; (b) buy a farm or farm supplies; and (c) buy or expand a business venture.

Veterans in rural areas and in small cities and towns where guaranteed loans are not generally available are eligible for VA direct home and farmhouse loans. This direct loan program for both World War II and Korean war veterans is due to expire on 25 Jul 1960.

Since the GI loan program was launched in June 1944, and up through December 1959, 5,125,000 loans have been guaranteed or made

to World War II veterans for a total face value of \$40.8 billion.

Of these, 4,822,000 were home loans; 229,000 were for business ventures; and 74,000 for farm purposes.

Approximately one-third of the eligible World War II veterans and one-eighth of the Korean veterans have taken advantage of the loan program to date.

Of the home loans made to date, more than one out of every four has been paid in full and only one out of every 100 has resulted in foreclosure.

• **WARRANT OFFICER BILLETS** —

All warrant officer billets in the Navy are being redesignated. Over half will eventually be filled by limited duty officers and the rest by E-9s.

During the warrant officer phase-out period, however, one warrant officer will continue to be relieved by another if such a relief is available. If not, a master chief petty officer or a limited duty officer will be assigned, depending on the billet's redesignation.

To accomplish the coordinated detailing required, a Technical Duty Officer Assignment Section has been established in the bureau with the responsibility for the assignment of surface line warrant officers, LDO (T) ensigns and LTJGs, and master chief petty officers who are needed to fill ex-warrant officers billets.

Aviation warrant officers, enlisted aviation pilots, and aviation LDO (T) ensigns and LTJGs, are being

assigned by the LTJG and ensign assignment section in the Bureau of Naval Personnel.

Staff corps warrant officers will continue to be the responsibility of the appropriate corps. Those staff corps master chief petty officers needed to fill former warrant officer billets will actually be detailed by the Enlisted Distribution Branch of the Bureau, after coordination with the appropriate staff corps.

Other info may be found in BuPers Notice 1300 of 8 Feb 1960.

• **UNIFORM FOR RESERVISTS** —

Heading back to inactive duty? If you have a six-year obligation and are released to inactive duty before the end of this time, you must be prepared to take part in the Naval Reserve program. You'll need your uniform for drills and annual active duty for training.

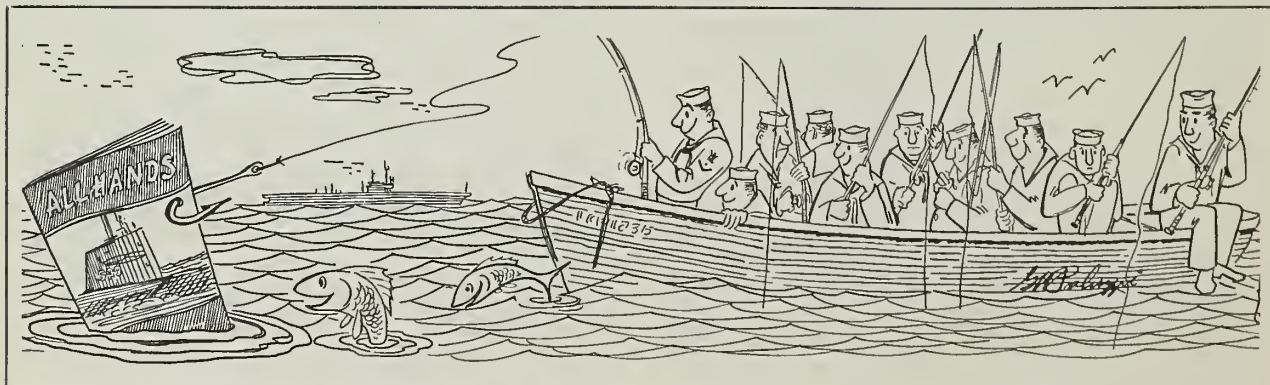
Quite a few men with a remaining obligation have been letting their uniforms go adrift when they return home from their active duty tours. Then, when they join a drilling unit, they find they have to replace uniform items at their own expense.

A word to the wise—the initial clothing issue will be needed throughout your period of obligated service, so don't deep-six it.

• **SUB DUTY REQUIREMENTS** —

If you're a Navyman with a yen for submarine duty, and you haven't quite been able to meet the Submarine Service's strict physical requirements in the past, here's good news—you and a lot of others in the same boat can now have your applications reconsidered.

There are, the Navy feels, a large number of well qualified enlisted men who apply for submarine training each year only to see their requests go unforwarded because of some marginal physical defect.



"IT'S A BIG CATCH! Share it with the nine other Navy men who are waiting to read this issue of ALL HANDS."

Slightly less strict adherence to those exacting standards, it is believed, would open up a whole new source of supply of highly motivated volunteers for sub duty, including the high priority nuclear power and Fleet Ballistic Missile programs.

Here's what you should do: If you're otherwise qualified and eligible, resubmit your request. Commanding officers have been directed to forward all such requests, along with the Report of Medical Examination, direct to the Chief of Naval Personnel.

In his endorsement your CO will indicate what effect, if any, and to what degree any slight physical defect has on your performance of your military and professional duties.

Each request will receive individual attention in the Bureau. You'll also get personal acknowledgement that your request has been received and is being considered. For additional info, see BuPers Notice 1510 of 11 Mar 1960.

• SCHOOLS FOR FLEET PERSONNEL

—If you failed to get a Class "A" school when you left boot camp, but still want to attend, now is your chance. Non-rated Navymen are needed to fill quotas in 44 different Navy schools during August 1960.

The available schools, according to BuPers Inst. 1510.86A (Plan TIGER), are CTM, ET, FT, GS, AQ, AT, GF, CTA, SK, BT, BU, CE, CM, DM, EM, IC, MM, MN, NW, OM, SFM, SFP, SW, TM, UT, CTO, CTR, RD, RM, SO, AE, TD, AD, AM, AO, AB, PR, ACT, ACW, AG, AK, PH, IM and HM.

If you're interested in attending any of these schools you should first find out if you are eligible. School entrance requirements are listed in the *catalog of U.S. Naval Training Activities and Courses* NavPers 91769-D), and in CNATECHTRA Bulletin of Schools and Courses.

Once you have ascertained that you are qualified to attend the school of your choice, you should submit a letter to the Chief of Naval Personnel (Pers-B2132), via chain of command, requesting that you be assigned to a Class "A" school. To improve your chances of being selected, you should list three choices in order of preference.

Your commanding officer will list your basic battery test scores and give your educational background in his endorsement. A waiver of 10 points on a combined score or five

points on a single score will be considered by the Bureau.

If you are assigned to a school, a trained replacement will be assigned to your ship or station.

• CHANGES TO UNIFORM REGS—

Here is a roundup of the latest changes to U. S. Navy Uniform Regulations, as approved by the Secretary of the Navy:

A new distinguishing mark for wear by enlisted personnel qualified as Scuba divers is authorized. It consists of a diving helmet and breastplate with the letters "SD" centered on the breastplate. This is effective upon availability of insignia. (Art. 0653.5)

Another change authorizes the wearing of a unit identification mark by those enlisted personnel below the grade of CPO who are assigned to Cargo Handling Battalions. It will bear the identifying letters CHB plus the appropriate numeral. (Art. 07611.3)

The Navy "E" with horizontal stripes is to be worn until present stocks are exhausted. (Art. 0653.5)

The OC or ROC shoulder sleeve insignia are authorized for wear on the left sleeve of peacoats, overcoats, and raincoats, in addition to jumpers and officer-type uniform coats. (Art. 0658.1, 07610 and 07613.1.b)

A cloth rating badge without specialty mark is directed for wear on the blue working jacket by petty officers below the grade of CPO. This is effective upon availability of insignia. (Art. 0762.1, 0762.6, 0762 Table 1)

An alternate method to stenciling is the use of a half-inch stamp for marking enlisted men's clothing. Stamps will not be stocked in Clothing and Small Stores, they must be purchased individually. (Art. 0740.1 and 0740.4)

In the case of Waves, spacing between chevrons on enlisted women's rating badges is increased to one-fourth inch to make possible removal of excess chevrons, and permit stocking in first class design only. Badges with the old 3/16-inch spacing may be worn until present stocks are used up. (Art. 0862)

The officer's sword belt and scabbard may be made of synthetic material presenting the same appearance as plain black grain leather. This is authorized only as alternate material, and does not replace leather for use in these items. (Art. 0159.3)

QUIZ AWEIGH



Recently the U.S. Navy adopted an official flag. The history of Navy flags, however, is the story of the Navy itself. Here are six flags associated with the birth of the U.S. Navy. See if you can match them with the following statements.



A



D



B



E



C



F

1. Had a yellow background.
2. Was first distinctive American flag flown in south.
3. Used to symbolize America's first naval victory.
4. Received a nine-gun salute from the French Fleet—the first formal salute to the U. S. Flag.
5. Was hoisted by John Paul Jones aboard *Alfred*.
6. Was personal flag of Commander in Chief of the Navy of the United Colonies.
7. The Grand Union or Cambridge Flag, it was also called the first Navy Ensign.
8. The First Navy Jack.
9. Was adopted as "the flag of the United States" on 14 June 1777.
10. Was flown by Washington's Navy.
11. Referred to as Rattlesnake or Gadsden's Flag.

To find out how well you did on this quiz turn to page 52.

THE BULLETIN BOARD

Facts and Figures on Medicare for the Navyman's Dependents

TWO FACTS STAND OUT in any current discussion among Navy men about Medicare.

One is the startlingly large amount of misinformation and lack of information which still exist about the workings of this most important fringe benefit. The other concerns the newest changes in the program, which have restored some benefits lopped off more than a year ago.

Probably most of the confusion arises over the question of who's eligible for what and where to get it. Some 40 per cent of Navy dependents reside apart from their sea-going sponsors, and a great many of those dependents haven't gotten the word as to what's available to them, and how to go about getting it.

Similarly, in the case of the Navyman and his dependents residing together, there apparently is a good deal of misunderstanding regarding the conditions under which those dependents become eligible for treatment in civilian institutions.

As for the latest changes to the program, most of them, as mentioned earlier, restore some benefits dropped as an economy measure in October 1958.

The following types of care have been restored to the civilian part of the program:

- Surgery that the attending physician believes is medically indicated and necessary for proper care and treatment of the basic condition.
- Treatment of acute emotional disorders constituting an emergency.
- Necessary diagnostic tests and examinations before and after hospitalization for surgery or bodily injuries.
- Outpatient treatment of bodily injuries, such as fractures, dislocations, lacerations or similar wounds.

Not affected has been the requirement that dependents residing with their sponsor avail themselves of service medical facilities if such are reasonably adequate and available.

Since Medicare is considered to be one of the outstanding positive morale factors affecting practically every Navyman and his dependents, it's important that everyone be thoroughly informed about it.

Definition of Dependent

The Medicare program was established by the Dependents' Medical Care Act. It affects dependents of active duty and retired members of the Armed Forces and dependents of Armed Forces personnel who died while on active duty or in retirement. For purposes of this program, a dependent is defined as:

- The wife.
- The unremarried widow.
- The husband, if he is dependent on the active duty or retired member for over one-half of his support.
- The unremarried widower, if he was dependent upon the active duty or retired member, at the time of her death, for over one-half of his support because of a mental or physical incapacity.
- An unmarried legitimate child, including an adopted child or step-child, who either—
 - (a) Has not passed his 21st birthday;
 - (b) Cannot support himself be-

cause of a mental or physical incapacity that existed before that birthday and is, or was at the time of death of the active duty or retired member, dependent on him for over one-half of his support;

(c) Or, has not passed his 23rd birthday, and is enrolled in a full-time course of study in an approved institution of higher learning and is, or was at the time of death of the active duty or retired member, dependent on him for over one-half of his support.

(The fact that the former wife of a member of the uniformed services remarries does not necessarily terminate a child's eligibility for medical care. However, adoption of the child by a third party—other than a person whose dependents are eligible for care—terminates the child's eligibility.

(When an eligible dependent child marries, entitlement to medical care as a dependent child ceases on the date of marriage. However, should the marriage be terminated, the child may again be entitled to medical care as a dependent child, provided the child still meets with the eligibility requirements listed above.

• A parent or parent-in-law who is, or was at the time of death of the active duty or retired member, dependent on him for over one-half of his support, and who is or was residing in a dwelling place provided or maintained by the active duty or retired member.

Dependents Identification Card

DD Form 1173 (Uniformed Services Identification and Privilege Card) is the prescribed form for the identification of dependents seeking medical care. To apply for it on behalf of your dependents, you should submit a DD Form 1172 (Application for Uniformed Services Identification and Privilege Card). Except in special circumstances, dependents over 10 years old are required to show DD Form 1173 when applying for treatment. Normally, the card is not issued to those under 10.

All-Navy Cartoon Contest
Honorable Mention
H. P. Wood, Jr., CMA3, USNR



"... and I can't find an outlet for my electric blanket."

Medical Facilities Authorized for Dependents

Only wives, dependent husbands and dependent children of active duty members of the uniformed services are authorized care from civilian medical facilities at government expense. *When you are released from active duty, your wife and children are no longer eligible to receive civilian medical care. Also, the Medicare Program will not pay for civilian medical care for dependent parents or parents-in-law, dependents of retired personnel, or dependents of deceased personnel.* However, for treatment at Armed Forces Medical facilities, all dependents are eligible—subject to the availability of space and the capabilities of the professional staff.

When *not* residing with you, your wife and children may choose between military and civilian medical facilities. When they *are* residing with you in the United States or Puerto Rico they may, in most cases, obtain medical care from civilian sources at government expense only when that care cannot be provided by a military facility within reasonable distance of the patient's residence. (Exceptions are made in emergencies and certain other circumstances.)

Your dependents are considered to be residing with you if they live in an area to which you are assigned—for example, in the area of your permanent duty station or your ship's home port or yard. This applies even though you may be temporarily away with your ship or unit, or if you are absent on individual TEMDU or TAD orders.

"Nonavailability Statement" Explained

A Nonavailability Statement (DD Form 1251) normally will be furnished your wife and children if they are residing with you—when there are no medical facilities of the uniformed services in the area in question or when the available military medical facility (or facilities) in the area cannot provide the required care.

DD Form 1251, was formerly called the "Medicare Permit." It has been revised and is now entitled the "Nonavailability Statement." Until the revised form becomes available through normal channels, old Medicare Permits will be used.

The Nonavailability Statement must be presented to the source of civilian medical care if one of your dependents chooses to seek such treatment under the Medical Program. The statement is for immediate use, and should not under any circumstances or conditions be considered a guarantee that the Government will necessarily pay for the civilian medical care obtained. The statement merely indicates: that the care requested is not available from military facilities; that if the care

is subsequently determined to be authorized under the Dependents' Medical Care Program, it will be paid for by the Government to the extent that the program permits; and that if the care is found not to be authorized under the program, the Government will not be liable for payment of any portion of the unauthorized care received.

If you are living in an area where there is no military medical facility, you or your dependents may request a Nonavailability Statement

HOW DID IT START

Navy Nurse Corps

The Navy Nurse Corps is 52 years old this month. It was established by an Act of Congress on 13 May 1908.

Over the years the duties of Navy nurses have ranged from teaching girls in primitive Pacific Islands to assisting Navy doctors with major surgery at sea. Navy nurses have served with the American Fleet around the world.

Nurses were employed by the Navy even before they were made a part of the service. In 1898, the Naval Hospital in Norfolk, Va., employed nurses to care for sick and wounded men of the Spanish American war.

On 8 Aug 1908, almost three months after the Nurse Corps was established, Esther Voorhees Hasson was appointed the first Superintendent. Within a year, 44 Navy nurses were assigned to Naval hospitals at Washington, D.C.; Norfolk, Va.; Annapolis, Md.; Brooklyn, N. Y.; and Mare Island, Calif.

In 1910, Navy nurses were assigned to overseas hospitals in the Philippines, Guam, Hawaii, Japan, Samoa, Cuba, and the Virgin Islands.

During World War I, 1386 Navy nurses served in England, Scotland, Ireland and France, as well as in the United States. Four of these nurses were awarded the Navy Cross.

When the Japanese struck at Pearl Harbor in 1941, Navy nurses were on duty at Pearl Harbor, Kaneohe Bay, P.I., on Guam, and aboard the hospital ship USS Solace (AH 5).

Five nurses on Guam were captured by the Japanese and imprisoned for seven months. Eleven other Navy nurses were captured in Manila and were imprisoned for 37 months. Even then, these women continued their work, caring for the sick and wounded. For her service on Bataan during World War II, one Navy Nurse, Ann A. Bernatitus, was awarded the Navy's first Legion of Merit. Thirteen Navy nurses

won Bronze Star Medals. Eleven received a Gold Star in lieu of a second award.

During World War II more than 11,000 Navy nurses were on active duty and were assigned to naval activities in the Aleutian Islands, Alaska, New Zealand, Australia, New Hebrides, New Caledonia, Solomon Islands, Admiralty Islands, Mariana Islands, England, Africa, Italy, Bermuda, Newfoundland, Cuba and Jamaica, as well as to naval medical activities within the United States.

In April 1947 the Army-Navy Nurses Act established the Nurse Corps as a permanent staff corps of the U. S. Navy with ranks from ensign to captain. (Captain Ruth A. Houghton, NC, USN, present director of the Navy Nurse Corps, was the first Nurse Corps officer to be selected in the grade of Captain.) Nurses had been given relative rank in 1942 and actual rank in 1944 to last until the duration of the emergency, plus six months.

During the Korean war, nurses (now Navy staff corps officers) were assigned to three hospital ships in Korean waters; to Military Sea Transportation ships; to Military Air Transport Service planes; and to hospitals, Hospital Corps schools, infirmaries and dispensaries at home and overseas.



from the nearest military installation or off-post activity (except installations and off-post activities of the Coast and Geodetic Survey). The commander of that installation, or his designated representative, will furnish you or your dependents with a Nonavailability Statement if he determines that a military medical facility is not within reasonable distance of the dependent's residence. In determining what constitutes reasonable distance, consideration is given not only to distance, but also to time required normally to complete the trip, unusual geographic and transportation factors (such as availability of private or public transportation) and the presence of toll bridges or ferries which would unreasonably increase the time and expense of travel. The fact that a uniformed services medical facility is located in another geographic area, as delineated by a state, county, city, town or similar boundary, does not, in itself, place the facility outside the area of the dependent's residence.

If you live in an area where there is a uniformed services medical facility, your dependents must apply first for medical care at that facility. The commander of the medical facility, or his designee, will determine whether adequate medical facilities and medical staff are available to furnish the required care. If it is determined that such care cannot be provided, the commander of the medical facility, or his designee, will furnish Nonavailability Statement. *Under no circumstances will the commander of a uniformed service medical facility, or any member of his command, refer a dependent to a specific civilian physician or civilian hospital for medical care.*

Requirements Waived

The requirement for a Nonavailability Statement will be waived under the following circumstances:

- When it is necessary for your wife or children to obtain care from civilian sources because of a *bona fide* emergency—for example, serious injury following an accident, or sudden illness requiring immediate hospitalization to preserve life or health, or to prevent undue suffering. In such cases, the attending physician is required to certify that the emergency did, in fact, exist.

- During the period of absence

All-Navy Cartoon Contest
Honorable Mention
LT B. E. Lodge, USN



"Say, isn't that your P.O. evaluation sheet that he is working on?"

from the area of your household on a trip.

In areas where there are medical facilities of two or more uniformed services, there is a "Dependents' Regulating Office" to insure all possible utilization of such facilities. The service having the facility with the largest number of beds for patient care in the area is responsible for operating the local Regulating Office. If proper care cannot be furnished at the uniformed services medical facility to which you or your dependents apply, the Regulating Office will be contacted to determine whether or not care can be provided at another facility before a Nonavailability Statement is issued. When two or more facilities are available, you will be permitted to make a choice. The function of the Dependents' Regulating Office is not to issue Nonavailability Statements, but to collect and make available to the various medical facilities information on the capability of other uniformed services medical facilities in the area. The commander of the medical facility to which you or your dependents apply for care is responsible for issuance of a Nonavailability Statement, if one is required.

An important point to remember: an issuing authority can issue a Nonavailability Statement on a retroactive basis to cover care already commenced or completed by civilian medical sources, when it is determined that the Nonavailability Statement could have been issued before the care was commenced, if

application had been made.

Wives and children residing with their sponsors will be issued, and should retain, DD Forms 1173 to indicate that they are eligible for Medicare. This form is the basic identification document, and is not affected by the requirement for a Nonavailability Statement.

Change in Residence of Dependents

If the status of your dependents changes from residing apart to residing with you, the source of medical care will be determined as follows:

- **Hospitalization**—If your wife or children were residing apart from you at the time of admission to a civilian hospital, and they acquire the status of "residing with sponsor" during hospitalization, they may complete authorized care for that admission and readmission without a Nonavailability Statement.

- **Maternity Care**—If your wife is residing apart from you at the time maternity care is commenced, and later takes up residence with you during the period of the care and prior to hospitalization for delivery or for complications of pregnancy, she may continue to obtain care and hospitalization from civilian sources without a Nonavailability Statement, provided she does not change her attending physician. If she cannot continue care with the same physician, and your residence is in an area where there is a uniformed services medical facility, she must apply for care at that facility. If your residence is in an area where there is no uniformed services medical facility, she may request a Nonavailability Statement from the nearest uniformed services installation or off-post activity (except installations and off-post activities of the Coast and Geodetic Survey) in order to obtain civilian medical care.

- **Outside the United States and Puerto Rico.** If your wife and children reside outside the United States or Puerto Rico, you or your wife must apply to the oversea naval commander of area where they are residing for information and authority to obtain authorized civilian medical care from professional acceptable local sources in accordance with regulations. For example, if your wife lives in Canada, either you or she should apply to the

U. S. Naval Attache, American Embassy, Ottawa, Canada, for information relative to obtaining civilian medical care. Likewise, if your wife lives in the Philippine Islands, either you or she should apply to the Commander, U. S. Naval Forces Philippines, for civilian medical care. However, where medical facilities of the uniformed services are available in the overseas area, and are capable of providing the required care, your wife and children who are residing with you must use these facilities for medical care.

Care in Medical Facilities Of the Uniformed Services

Whenever requested, authorized medical care in medical facilities of the uniformed services will be provided, subject to the availability of space and the capabilities of the professional staff.

This care is not available to dependents at facilities operated by the Public Health Service—such as outpatient offices, designated physician's offices and Indian or Alaska Native Service Hospitals.

The determinations made by the commanding officer, medical officer in charge, or contract surgeon in charge of the uniformed services medical facility, or by his designee, as to the availability of space and facilities and the capabilities of the professional staff, will be final and conclusive.

In deciding whether or not a uniformed services medical facility is available to dependents for medical care, the determining authority will consider the primary mission of the facility, adequacy of professional care available, number of patients who can be treated without sacrificing high professional standards, and maximum utilization of the facility.

Except in an emergency, medical care for your dependents in the facilities of the uniformed services will be limited to diagnosis, treatment of acute medical conditions, treatment of surgical conditions, treatment of contagious diseases, immunization, maternity and infant care, and any other treatment authorized by the Surgeon General of a uniformed service.

Treatment will be provided in acute emergencies of any nature which are a threat to the life, health and well-being of the patient. Hos-

pitalization is authorized in medical facilities of the uniformed services for such emergencies only pending completion of arrangements for care elsewhere, unless the illness or condition is one of those listed above.

If your hospitalized dependent should require care beyond the capabilities of the medical facility, the commanding officer or officer in charge of the facility is authorized to arrange for the required care by one of the following means:

- Transfer the patient to the nearest medical facility of the uniformed services where the required treatment is available (Government transportation will be used when available.)
- Procure from civilian sources the necessary supplemental material and professional and personal services required for the proper care

NOW HERE'S THIS

Paint for Golden Gate

The Golden Gate — long a symbol of homecoming to Navymen from the Pacific — may be gilded in color as well as name.

Ever since the days of the Forty-Niners, the strait at the mouth of San Francisco Bay has been known as the Golden Gate. Since 1937 the strait has been spanned by the Golden Gate Bridge, under which thousands and thousands of Navymen have passed on their way to or from the Pacific.

Up until recently there was no gold paint on the market that could withstand the punishment the bridge takes from the weather, so the color of the famed span has been about the same as that of other bridges.

Now, however, the manager of the bridge has agreed to test a new gold paint which has already been used successfully on automobile bodies. If the tests work out, the bridge may have taken on a 24-carat new look by the time you see it again.



and treatment of the patient in his facility. (Charges for such material or services will be paid from funds available to operate the uniformed services medical facility furnishing the care.)

Limitations on Hospitalization At Uniformed Services Facilities

Your dependents will NOT be provided hospitalization at medical facilities of the uniformed services for the following:

- Chronic diseases, except for acute exacerbations or complications requiring active and definitive medical or surgical treatment.
- Nervous and mental disorders, except for diagnostic purposes.
- Care which, in the opinion of the cognizant medical authority, is not medically indicated; for example, surgery solely for cosmetic purposes.
- Domiciliary care.

However, in special and unusual circumstances, exceptions for specific patients may be made by the Surgeon General having jurisdiction over the uniformed services medical facility concerned, and hospitalization and/or treatment may be provided for such disorders or diseases. In no instance may the period of hospitalization exceed 12 months.

Your dependents will NOT ordinarily be provided with the following at Uniform Services facilities:

- Artificial limbs, artificial eyes, hearing aids, orthopedic footwear or spectacles. However, outside the United States, and at remote stations within the United States when so designated by the secretary of the uniformed service concerned, and upon approval by the Secretary of Defense where adequate civilian facilities are not available, those items if available from Government stocks, may be provided to dependents at invoice cost. When the invoice cost is not available, the inventory or catalog price may be used at the discretion of the responsible property officer concerned. For example, the charges to the dependent for spectacles could be on the basis of standard unit price.

• Ambulance service for initial admission — unless a Government ambulance is used in acute emergency as determined by the medical officer or other responsible officer in charge.

- Home calls—except in special

cases where it is determined by the medical officer in charge to be medically necessary.

To provide effective cross-utilization of medical facilities of the uniformed services, dependents, regardless of service affiliation, are given equal opportunity for medical care. They may request and be furnished medical care at the medical facility of the uniformed service serving the area in which they reside, or in the medical facility of their own branch of service, depending upon the capability of the medical facilities concerned. In areas where medical facilities of two or more uniformed services are available, the appropriate officials of each service, with due consideration for the relative size and capabilities of the medical facilities, jointly determine the capabilities and establish areas of medical responsibility.

When medical care is provided for your dependents in facilities of the uniformed services, a charge of \$1.75 per day is made for in-patient care. No charge is made for out-patient care.

If your dependent is at a uniformed services medical facility at the time you are discharged from the service, or if your dependent's status changed so that he or she was no longer a dependent, the Government's responsibility for furnishing medical care under the Dependent's Medical Care Act ceases at 2400 hours (midnight) on the date of such event.

However, if the medical officer in charge rules that continued hospitalization in the uniformed services facility after the date of such change in status is necessary (until proper disposition of the patient can be made), charges will be made at the full per diem reimbursement rate.

Dental Care at Uniformed Services Facilities

Within the United States, except in remote areas, dental care for dependents is limited to emergencies. Your dependents may be provided emergency dental care to relieve pain or suffering. This does not include orthodontic or prosthodontic treatment or permanent restorative work.

Your dependents may also be provided dental care deemed necessary by the cognizant dentist and physi-

cian as an adjunct to medical or surgical treatment—that is, treatment of fractures of the jaw and treatment of infections of dental origin.

Outside the United States and at designated remote areas within the United States: Routine dental care includes general operative, surgical and prosthodontic treatment of the type which active duty members of the uniformed services are furnished.

In areas where dental facilities of two or more uniformed services are available, appropriate officials of each service jointly determine the capabilities of the facilities and establish areas of dental responsibility.

Remote areas within the United States are designated by the secretary of each uniformed service, upon approval by the Secretary of Defense. Normally, an area is not considered remote unless the uniformed services activity is an unreasonable distance from a community with adequate civilian dental facilities. Consideration is given to unusual geographic and transportation factors, such as toll bridges or ferries which unreasonably increase the time and expense of travel. A community's dental facilities ordinarily are considered inadequate if it is determined that the local civilian dentists are unable to provide proper care for eligible dependents of all members of the uniformed services residing in the area.

Any dental care provided to dependents by dental facilities of the uniformed services is furnished free.

All-Navy Cartoon Contest
Honorable Mention
J. R. Leszewski, SMSN, USN



"Well there goes another finished product."

Medical Care in Civilian Hospitals

Only a wife, a dependent husband, or children who are dependents of active duty members of the uniformed services are eligible to receive specified medical care in civilian hospitals and from civilian physicians and surgeons at government expense. Your dependents requesting medical care from civilian sources will be required to observe the identification procedures prescribed by the uniformed services. Additionally, your dependents who are residing with you in the United States or Puerto Rico must provide civilian sources with a Nonavailability Statement except in an emergency, or if they are absent from the area of your household on a trip.

The medical and surgical care authorized your dependents from civilian sources includes:

- Treatment of acute complications of chronic diseases, only during hospitalization.

- Treatment of surgical conditions during hospitalization. In addition to care for acute surgical conditions, treatment, is authorized for surgical conditions that are not classified as acute, but for which good medical practice dictates prompt attention (for example, tonsillectomies). However, treatment of some nonacute surgical conditions is authorized ONLY if certain conditions prevail. Some examples of surgery in this category are (for a complete list check with your medical officer):

- *Ears*—surgery for restoration or improvement of hearing.

- *Eyes*—surgery for glaucoma, cataracts, strabismus (squint) or other conditions, to aid or improve vision of the affected eye.

- *Harelip and/or cleft palate*—surgery for initial repairs, including surgery for subsequent repair known and established as a requirement at the time of original surgery. Subsequent revisions are not authorized.

- *Skeletal defects* (for example, club foot, congenital dislocated hip)—surgical treatment is authorized only when treatment is required as an inpatient to improve function. Care normally provided on an outpatient basis and not requiring hospitalization is not authorized.

- *Scars*—surgical treatment is authorized only when a scar is ulcer-

ated, shows clinical evidence of malignancy, or when a contracture impairing anatomical function is present.

- Surgical treatment for removal of certain types of lesions only if they are bleeding, ulcerated, painful, or show clinical evidence of malignancy, or if size and location produce functional impairment.

- Surgical treatment for removal of certain types of warts, cysts or moles only if they are bleeding, ulcerated, painful, or show clinical evidence of malignancy, or if size and location produce functional impairment.

If any of your dependents were admitted to a hospital for nonacute surgery before 1 Jan 1960, and they were still in the hospital on that date receiving a type of treatment which is authorized on and after that date, payment may be made to the civilian sources of care for the entire uninterrupted period of hospitalization.

Those surgical procedures that are customarily handled by a dentist may be treated by a dentist who is a member of the staff of a hospital and normally performs these surgical procedures in that hospital. The removal of teeth is not normally authorized surgical procedure. When authorized surgical treatment is performed by a dentist, other procedures, diagnostic tests, services and supplies authorized or ordered by him may be paid to the same extent as if a physician or surgeon authorized or ordered them.

Treatment of contagious diseases during hospitalization is authorized.

Maternity Care At Civilian Facilities

Complete obstetrical and maternity services will include prenatal care, delivery, and postnatal care in a hospital, office or home. Payments for prenatal care, delivery and postnatal care will be made to the physician performing the respective service in accordance with the local schedule of allowances. In the event more than one physician provide prenatal care, the prenatal care period may be divided into three parts with appropriate apportionment of the prenatal fee—or other appropriate arrangements for reimbursing the physician may be made in the local schedule of allowances.

The Government normally will

WHAT'S IN A NAME

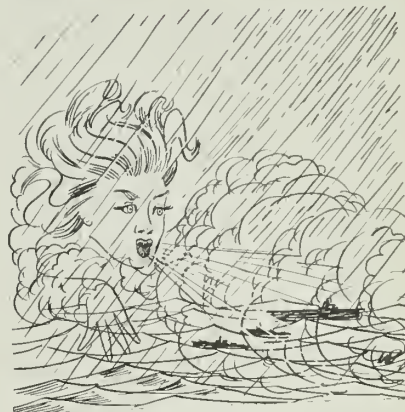
The Hurricane Ladies

Since most seafaring men—and landlubbers, too—seem to devote a good portion of their everyday conversation to the fair sex and the weather (fair or foul), it was not just a coincidence that the Weather Bureau decided to use female names for certain weather conditions. The ladies' names were chosen, however, for somewhat uncertain weather phenomena—hurricanes and tropical storms. Each year now, these gals are making the headlines.

A look into the Weather Bureau's little black book reveals 84 names. Divided into four groups of 21 each, the names will be permanently assigned to the big storms arising in the Atlantic Ocean, Caribbean Sea and Gulf of Mexico.

The number one gal in the 1960 storm circuit is Abby. Her sisters will be Brenda, Cleo, Donna, Ethel, Florence, Gladys, Hilda, Isbell, Janet, Katy, Lila, Molly, Nita, Odette, Paula, Roxie, Stella, Trudy, Vesta and Winny. Quite a collection.

Next year, storms and hurricanes will have a similar series of two-syllable names running from Anna to Wenda. In 1962, the



list will extend from Alma to Wilna, and in 1963, from Arlene to Wallis.

By 1964 you should be tired of the new crop of gals so you can go back to this year's list. Thereafter each set of names will be repeated. However, if any one gal gets a little too stormy and out of hand, she'll be stricken from the list, and a new name will join the group.

not pay more than one physician's fee for each quarter. During prenatal care a change in physicians as a result of your permanent change of station, a change in residence of the patient involving a considerable distance, or death or disability of the attending physician are authorized exceptions. Similarly the Government will not pay a separate fee for postpartum care except when the physician performing the postnatal care is other than the physician who performed the delivery—as a result of such changes as those mentioned above. Allowances are authorized for laboratory tests, pathological and radiological examinations and other procedures performed or authorized by the attending physician in the management of the pregnancy.

In instances of home or office confinement, payments are not authorized for the purchase or rental of beds, bassinets, or similar equipment, or for all services of private-duty nurses.

Necessary infant care is provided during the period of hospitalization following delivery. If the infant requires further hospitalization after discharge of the mother, such care

is authorized as a continuation of the original admission. Also, in the case of a home or office delivery, necessary infant care may be provided on an outpatient basis for a period not longer than 10 days following the date of delivery.

Obstetrical and maternity patients who develop acute emotional disorders complicating pregnancy or constituting postnatal psychosis occurring within the six weeks' postnatal period authorized for maternity care, are authorized in-hospital care for such disorders.

Any patient hospitalized in a civilian hospital for treatment authorized above may be transferred to a hospital of the uniformed services subject to the availability of space and facilities and the capabilities of the professional staff.

Arrangements for such transfer should be made between you or your dependents and the commander of the nearest uniformed services medical facility.

Acute Emotional Disorders

Treatment in a hospital for acute emotional disorders is authorized as follows:

- Care of the type required by a dependent during a period of hos-

pitalization for a condition that qualifies as authorized care.

- Acute emotional disorders complicating pregnancy or constituting postpartum psychosis occurring within the authorized six weeks' postnatal period.

In addition, since 1 Jan 1960 treatment in a hospital for an acute emotional disorder has been authorized if such disorder is considered an emergency which is a threat to the life or health of the patient. Ordinarily, care is provided for an acute emotional disorder only until the disorder subsides, until arrangements are made for care elsewhere, or until the end of 21 days of hospitalization—whichever occurs earliest. Extensions beyond 21 days may be granted on a case-by-case basis if you or your representative shows that owing to absence (for example, your overseas assignment when your dependent is in the U. S.) arrangements for care elsewhere could not be completed within the 21-day period.

If your dependent was admitted to a civilian hospital before 1 Jan 1960 for treatment of an acute emotional disorder constituting an emergency, and was still in the hospital for treatment of such condition on that date, payment may be made to civilian sources for care provided up to a maximum of 21 days, even though a portion of the care was furnished prior to 1 Jan 1960.

In special cases, and when authorized by the Surgeon General of a uniformed service, additional care for an acute emotional disorder may be provided in a hospital of that service on a space available basis.

Laboratory Tests During Hospitalization

All diagnostic tests and procedures, including laboratory tests and pathological and radiological examinations, when ordered by the attending physician and accomplished during a period of hospitalization are authorized.

In those instances during the period of hospitalization when treatment by the use of X-ray, radium or radioisotopes is prescribed, such treatment may be continued or carried out on an outpatient status.

The cost of blood and the service charge for blood required during authorized care of your dependents

All-Navy Cartoon Contest
Honorable Mention
D. F. Joachim, JO3, USN



"Quit the comedy, Smith!"

in civilian medical facilities are allowable benefits. However, friends and relatives of the patient having the type of blood required should be encouraged to donate blood. In instances where blood must be purchased, these purchases will be made by the civilian hospital and included on the claim for reimbursement. Only in exceptional instances will payment be made to a civilian physician. Any person providing blood for an individual undergoing treatment at Government expense may be reimbursed at the rate which prevails at the civilian medical treatment facility, not to exceed the sum of \$50 for each withdrawal.

Services Before or After Hospitalization

Services required of a physician or surgeon before and following hospitalization for a bodily injury or surgical operations are considered authorized care.

If your dependent is hospitalized for treatment of a bodily injury or for a surgical procedure, payment for pre- and post-hospitalization tests and procedures is authorized as follows:

- Effective 1 Jan 1960, payment was authorized in an amount not to exceed \$75.00, at Government expense, for necessary diagnostic tests and procedures performed or authorized by the attending physician before hospitalization for the same bodily injury or surgical procedure for which hospitalized. If your dependent was admitted to a hospital for treatment of a bodily injury or for surgical procedure before 1 Jan 1960, and was still in the hospital on that date, prehospitalization tests and procedures in

connection with that hospitalization are authorized for payment.

- Effective 1 Jan 1960, payment was authorized in an amount not to exceed \$50.00 at Government expense for necessary tests and procedures performed or authorized by the attending physician for proper after-care of the same bodily injury or surgical procedure for which the patient was hospitalized. If the patient was hospitalized before 1 Jan 1960 and is still in the hospital on that date, the necessary post-hospitalization tests and procedures in connection with that hospitalization are authorized for payment.

The monetary limitations listed above may be exceeded in special and extraordinary cases if the physician authorizing the tests and procedures submits a special report justifying the additional charges.

Outpatient Treatment for Bodily Injuries

Effective 1 Jan 1960, treatment for bodily injuries (fractures, dislocations, lacerations and other wounds) was authorized on an outpatient basis. In a case where your dependent was injured before 1 Jan 1960, but after 1 Dec 1959, and where he or she was still under the care of the physician on or after 1 Jan 1960 for the same injury, payment is authorized from the date of commencement of care. Authorized treatment includes diagnostic and therapeutic tests and procedures ordered by the attending physician. Treatment of fractures, dislocations, lacerations and other wounds customarily cared for by a physician is authorized.

Charges for Dependent Medical Care

When the charge for the hospitalization of your dependent is \$25 or less, you must pay the charge as a direct transaction not involving the Government.

In other instances, charges are made as follows:

- If the entire period of hospitalization is in other than private accommodations, you must pay to the hospital for each admission the first \$25 of the bill, or an amount determined by multiplying the number of days of hospitalization by the per diem rate of \$1.75, whichever is greater.

- If your dependent spends the period of hospitalization in a private

room, and the attending physician certifies that such accommodations were required for proper care and treatment, the amount of private room charges less your payment listed above will be paid by the Government. If, however, private room charges are more costly, you will be charged an additional 25 per cent of the difference between private room charges and the weighted average cost of semi-private room charges. If your dependents have private room accommodations at your own request, and without certification from the attending physician that they are necessary, you will pay the entire difference between the charges for private room and the weighted average cost of semiprivate room charges.

- If your dependent is hospitalized in a hospital which has only private rooms, and you have no choice in the matter, you'll only be charged 10 per cent of the daily charges for such accommodations, or the total charges less \$15 per day, whichever is greater.

- If your dependent needs private-duty nursing care while receiving authorized hospital care, and the attending physician so certifies, you will be charged the first \$100 and 25 per cent of any charges in excess of \$100. The government will pay 75 per cent of special duty nursing charges in excess of \$100.

- If your dependent is admitted to a hospital as an obstetrical patient, as an inpatient for care required in direct connection with the pregnancy (including direct complications thereof) or for immediate postnatal inpatient care if delivery occurred outside the hospital, all of this will be considered as one admission for the purpose of determining charges.

- When your dependent is admitted to a hospital for authorized care, you are charged at least \$25 of the hospital charges for that admission. If, within 14 days following discharge from the hospital, he or she is readmitted for authorized treatment of the original condition or direct complications thereof, you won't be charged the first \$25 of the costs of such readmission. Instead, you will be charged the per diem rate of \$1.75 per day.

- If your dependent is trans-

ferred to another hospital for necessary treatment not available in the first hospital, and no break in hospitalization occurs except for time in transit, it will be considered as one admission for purposes of payment of charges.

- If your wife or child is treated for a bodily injury, such as a fracture, dislocation, laceration or similar wound, in a physician's office, or outpatient department of a hospital or clinic on an outpatient basis, you will be required to pay the first \$15 of the physician's charges. The government will pay the balance of the physician's costs above the first \$15 in accordance with the local schedule of allowances, and the hospital charges for use of emergency room and supplies. The government will also pay up to a maximum of \$75 for laboratory tests, pathology, and X-ray examinations performed or order by the attending physician in treatment of the bodily injury.

Information and Reception Centers Set Up at NAS Memphis

The problems of the newcomer and the visitor to naval activities in the Memphis area have been happily reduced.

An Information and Reception Center, designed with the newly arrived in mind, has been placed in operation at Gate One of the Naval Air Station.

This center offers help and information to newcomers, visitors and those not new to Navy Memphis but needing information.

The Navy at Memphis is a com-

plex organization. It consists of 10 separate commands and about 13,500 military personnel. The naval installation covers about 3265 acres and almost 400 buildings. In the past it has been difficult for new arrivals and visitors to find their way around. The new Center helps to eliminate this difficulty.

A crew of three mans the center. In addition to providing a warm welcome, they provide information about housing, medical care, religious services, education and recreation facilities, clubs, the Navy exchange, nurseries, baby sitters and domestic help, the commissary store, clothing and small stores, the station bank and the post office.

Other services offered at the Center include a notary public, a Red Cross field office, and an airline ticket office. In addition, there's a locator service that will tell you where a certain building is situated and the best way to get there.

The center was in the planning stages for several months. It first went into operation on a limited scale. Then, various services were added, maps, brochures, pamphlets and other information were accumulated in order to provide greater service, faster and easier.

The reception center is decorated with a large mural of the Civil War Battle of Memphis painted by William T. Elder, YN1, usn, of Basic Training Group Seven.

Enlisted Navymen and Marines Selected for NROTC Program

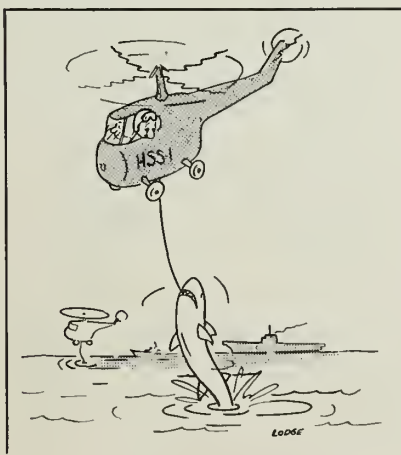
Some 257 Navymen and 79 Marines have taken the first step toward four years of college education—courtesy of the U. S. Navy—and commissions as career officers in the U. S. Navy and Marine Corps.

On the basis of scores attained in the Navy College Aptitude Test conducted last December, and preliminary screening of their service records, they've been provisionally selected for enrollment in the NROTC program.

They will report to the Naval Preparatory School, Bainbridge, Md., for refresher training and further screening.

Candidates finally selected will receive appointments as midshipman, Naval Reserve, and will report to college in September.

All-Navy Cartoon Contest
Honorable Mention
LT B. E. Lodge, USN



Latest List of Motion Pictures Scheduled for Distribution To Ships and Bases Overseas

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in March.

The Sleeping Beauty (1471) (C) (WS): Animated Cartoon.

On The Beach (1472): Drama; Gregory Peck, Ava Gardner.

The Big Sleep (1473): Drama; Humphrey Bogart, Lauren Bacall.

Cash McCall (1474): Drama; James Garner, Natalie Wood.

Solomon and Sheba (1475) (C) (WS): Biblical Drama; Yul Brynner, Gina Lollobrigida.

The Rookie (1476) (WS): Comedy; Tommy Noonan, Pete Marshall.

The Treasure of the Sierra Madre (1477): Drama; Humphrey Bogart, Walter Huston.

Third Man on the Mountain (1478) (C): Drama; Michael Renne, James MacArthur.

Subway in the Sky (1479): Melodrama; Van Johnson, Hildegard Neff.

Brother Orchid (1480): Melodrama; Edward Robinson.

Noose For a Gunman (1481): Western; Jim Davis, Barton MacLane.

The Flying Fontaines (1482) (C): Drama; Michael Callan, Evely Norlund.

Around The World in 80 Days (1483) (C) (WS): Comedy; David Niven, Shirley MacLaine.

The Story on Page One (1484) (WS): Drama; Rita Hayworth, Anthony Franciosa.

Flamingo Road (1485): Drama; Joan Crawford, Zachary Scott.

All-Navy Cartoon Contest
Honorable Mention
C. J. Ortega, DMISN, USN



The Gene Krupa Story (1486): Drama; Sal Mineo, Susan Kohner.

They Came to Cordura (1487) (C) (WS): Drama; Gary Cooper, Rita Hayworth.

A Dog of Flanders (1488) (C) (WS): Drama; David Ladd, Donald Crisp.

Silver River (1489): Western; Errol Flynn, Ann Sheridan.

The Purple Gang (1490): Drama; Barry Sullivan, Elaine Edwards.

Six New Correspondence Courses Are Now Available

Six new correspondence courses—five enlisted and one officer—have been issued by the Bureau of Naval Personnel, and five enlisted courses have been cancelled.

The six new courses are:

Title	NavPers No.
Dental Technician, Prosthetic, 1 & C (may be taken for repeat Naval Reserve credit)	91687-1 (ECC)
Surveyor 1 & C	91566-1 (ECC)
Navy Purchase	10402 (OCC)
Torpedoman's Mate 1 & C (Vol. 1)	91298 (ECC)
Air Controlman 3 & 2	91676 (ECC)
Aviation Storekeeper 1 & C	91675 (ECC)
Discontinued Courses	
Torpedoman's Mate 1	91304-D
Torpedoman's Mate C	91306 A
Air Controlman	91657 B
Surveyor 1	91565-A
Surveyor C	91566-A

The enlisted courses (ECC) are administered by the individual ship or station I & E training offices, while the officer courses (OCC) are conducted by the Naval Correspondence Course Center, Scotia, N. Y.

Navy Relief Society Made Loans of \$4,000,000 Plus Grants of \$755,000 in 1959

In 1959 the Navy Relief Society granted more than 60,000 interest-free loans to Navymen and Marines and their families, according to the Society's annual report on its operations.

The expenditures for these loans came close to four million dollars—slightly less than the amount loaned by the Society in 1958. The Society also paid about \$755,000 in outright grants in almost 14,000 cases last year—about the same as in 1958.

One outright grant was for \$3900. A six-year-old daughter of a PO1 was severely burned when her clothing was set afire by a gas heater in a small Southern school. Second and third degree burns covered 60 to 65 per cent of her body. She was hospitalized, but was given little hope for recovery.

The father, who was at sea, was granted emergency leave. He was later assigned humanitarian shore duty near his home. Private nurses around the clock, transfusions, special drugs and extensive laboratory work were vital.

After the critical period passed, extensive skin grafts were needed. The child was hospitalized for nearly 10 months. At the end of the period she had almost completely recovered. Only plastic surgery which could be accomplished at the Bethesda Naval Hospital in Washington, D.C., still remained to be done.

Although medicare paid much of the cost of hospitalization and care, the Navy Relief Society paid out \$3900 in outright grants in this case.

Usually the expenditures are smaller, and the cases turn out to be less serious.

In what the Society calls "relief in kind" (layettes, nursery expenses, thrift shops and such), expenditures during 1959 came to some \$175,000. In 1958 they totaled about \$147,000.

Besides helping financially, the Society rendered assistance in over 50,000 cases last year where monetary help was not required. These "service cases" ranged from answering simple questions to easing complicated situations of personal and family distress.

One case that falls into this category concerned a first class petty

ANSWERS TO QUIZ AWEIGH

- | | | |
|------|------|-------|
| 1. B | 5. F | 8. C |
| 2. E | 6. B | 9. D |
| 3. A | 7. F | 10. A |
| 4. D | | 11. B |

This month's quiz can be found on page 43.

officer who was on emergency leave in California from Guam. His sister had died suddenly, followed very shortly by the death of his sister's husband. Their 15-year-old son was left an orphan.

There were no other relatives and custody of the boy fell upon the serviceman, who was already the father of two boys. They were with their mother in Guam.

The POI's leave was about to expire and the boy had to accompany him to Guam. There was no one to care for him in the States. Only three days remained in which to complete all arrangements. These included court proceedings for adoption as well as authorization for passage on a military plane.

The Navy Relief Society was able to expedite the court proceedings and arrange for transportation. Within the time limit, the POI and his new son were flying home.

The number of Navy Relief Society "service cases"—that is, assistance which does not involve the expenditure of funds—was 51,407, an increase of some 2000 over 1958. These cover a wide variety of personal situations ranging from informational assistance to complex problems of counsel and moral support to Navy families during the absence of the Navyman overseas.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current *Alnavs* and *NavActs* as well as current *BuPers* Instructions, *BuPers* Notices, and *SecNav* Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since *BuPers* Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult *Alnavs*, *NavActs*, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; *NavActs* apply to all Navy commands; *BuPers* Instructions and Notices apply to all ships and stations.

Alnavs

No. 3—Requested applications from USNR and USNT officers for augmentation in unrestricted line as non-pilot aviation officer (1350).

Instructions

No. 1133.11A—Establishes cri-

teria for recommendations for reenlistment.

No. 1301.31A—Describes a plan for the distribution of unrestricted line officers based on the number of officers of each grade available for detailing.

No. 1301.32A—Emphasizes the importance of the Officer Distribution Control Report (NavPers 2627).

No. 1412.11A—Describes the assignment to duty with Joint, Combined, Allied, and Office of the Secretary of Defense staffs as a requirement for promotion to flag rank.

No. 1430.11B—Provides information regarding eligibility, examinations, study materials, physical qualification and obligated service for advancement to pay grades E-8 and E-9 of all active duty personnel.

No. 1811.1B—Provides information concerning nondisability retirement of officers, warrant officers and enlisted personnel of the Regular Navy.

Notices

No. 1110 (1 March)—Announced the names of those active duty enlisted personnel in the Navy and Marine Corps who have been provisionally selected for enrollment in the NROTC program.

No. 1620 (4 March)—Discussed the dangers of indebtedness.

No. 1520 (7 March)—Announced the selection of officers for the submarine school class which convened 4 April at the Submarine School, New London, Conn.

No. 1020 (8 March)—Announced changes to Navy Uniform Regulations.

No. 1510 (11 March)—Modified certain paragraphs of the Enlisted Transfer Manual to permit qualified enlisted personnel to apply for initial submarine training even though they are unable to meet all physical requirements.

No. 1412 (23 March)—Requested information from USN officers whose previous duty assignments included a normal tour of duty on a Joint, Combined, Allied, or Officer of the Secretary of Defense staff, or equivalent duties.

No. 3590 (24 March)—Announced the schedule, rules and procedures to follow in the upcoming 1960 Navy championship rifle and pistol competitions.

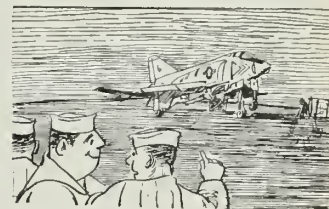
Advances in naval aviation come thicker and faster than ever these days—so fast, in fact, that it's sometimes difficult to keep up with them.

The trick, therefore, in discussing a new plane, is to avoid becoming overly concerned with bare statistics, lest some new development makes such figures old hat.

In the case of the F4H Phantom II, the Navy's first supersonic two-seat, twin-jet, all-weather interceptor, the statistics already racked up are undeniably impressive, but they're far from being the whole story. That story can best be summed up in just one word—versatility.

When it becomes a part of operating squadrons later this year Phantom II will provide the Fleet with an entirely new and superior complete weapons system. It will combine advanced speed, range- and altitude-capabilities with special radar, improved detection equipment, guided missiles, and the ability to deliver both conventional and nuclear bombs.

The result—an attack fighter capable of operating day or night in all types of weather, possessed of the



greatest firepower yet developed and equally at home in the role of an interceptor.

Some of the superior firepower will be provided by Sparrow III and Sidewinder (both air-to-air) missiles. Its long-range capabilities will be aided by the fact that it can be refueled in flight both from a tanker, using the "probe and drogue" system, and from another F4H via the "buddy tank" method.

A few other facts of interest: Phantom II's two J-79 engines give it a total thrust of more than 30,000 pounds. Its wings are swept back at a 45-degree angle, and a downward-sloping horizontal stabilizer provides better handling characteristics at all speeds. It is 56 feet long, has a wing span of nearly 38½ feet, and can exceed twice the speed of sound.

In one of its first tests CDR. Larry E. Flint, USN, flew the Phantom II to a record-breaking altitude of more than 98,000 feet. Later, he and LCDR Paul Spencer, USN, piloted it through a week-long series of carrier suitability trials aboard USS Independence (CVA 62).

Here Are Latest Changes in Group V and IX Rating Structure

REVISIONS TO the structure of 10 Group IX (Aviation) ratings and three Group V (Administrative and Clerical) ratings have now been approved by the Secretary of the Navy.

Aviation ratings affected are: AD, AM, AQ, AE, TD, GF, PH, AB, AT and AC. The general rating of Postal Clerk (PC) has been established, and revisions to the YN and PN ratings have been made.

In the Group IX ratings, the changes are as follows:

Aviation Machinist's Mate (AD)

Disestablish, in all pay grades, the General Service Rating of *Aviation Machinist's Mate (AD)* and the Emergency Service and Selected Emergency Service Ratings of *Turbo-Jet Engine Mechanic (ADJ)*, *Reciprocating Engine Mechanic (ADR)* and *Propeller Mechanic (ADP)*.

Disestablish, in all pay grades, the Exclusive Emergency Service Rating of *Aircraft Carburetor Mechanic (ESA)*.

Establish a General Rating of *Aviation Machinist's Mate (AD)* in pay grades E-8 and E-9 and the ratings of *Jet Engine Mechanic (ADJ)* and *Reciprocating Engine Mechanic (ADR)* as Service Ratings under the AD in pay grades E-4 through E-7. (Pertinent qualifications of the disestablished ADP and ESA will be included in appropriate Service Ratings of the AD.)

The path of advancement from *Aviation Machinist's Mate* will lead to Limited Duty Officer, Aviation Maintenance.

As a result of these changes, the new Rating Structure for ADs will look like this:

Pay Grade	Rate
E-9	ADCM
E-8	ADCS
E-7	ADJC ADRC
E-6	ADJ1 ADR1
E-5	ADJ2 ADR2
E-4	ADJ3 ADR3

Aviation Structural Mechanic (AM)

Continue the AM General Rating at pay grades E-8 and E-9.

Disestablish the AM General Rating at pay grades E-6 and E-7.

Extend the AME (*Safety Equipment*), AMH (*Hydraulics*) and AMS (*Structures*) Service Ratings to include pay grades E-6 and E-7, as well as the present E-4 and E-5.

Establish the path of advancement for AMs so that it leads to Limited Duty Officer, Aviation Maintenance.

The revised structure will be:

Pay Grade	Rate
E-9	AMCM
E-8	AMCS
E-7	AMEC AMSC AMHC
E-6	AME1 AMS1 AMH1
E-5	AME2 AMS2 AMH2
E-4	AME3 AMS3 AMH3

Aviation Fire Control Technician (AQ)

Redesignate the General Service Rating, AQ, a General Rating in pay grades E-5 through E-9.

Disestablish the Emergency Service and Selected Emergency Service Ratings of AQB (*Bomb Director*) and AQF (*Fire Control*).

Establish two Service Ratings—AQB (*Bomb Director*) and AQF (*Fire Control*)—at pay grade E-4.

Make the path of advancement for AQs lead to Limited Duty Officer, Aviation Electronics.

This will be the new structure:

Pay Grade	Rate
E-9	AQCM
E-8	AQCS
E-7	AQC
E-6	AQ1
E-5	AQ2
E-4	AQB3 AQF3

Aviation Electrician's Mate (AE)

Redesignate the General Service Rating of AE a General Rating in all pay grades.

Disestablish, in all pay grades, the Emergency Service and Selected

Emergency Service Ratings of AEM (*Electrician*) and AEI (*Instrument Repairman*).

Establish a path of advancement for AEs leading to Limited Duty Officer, Aviation Electronics.

Thus, the AE rating structure will be:

Pay Grade	Rate
E-9	AECM
E-8	AEC5
E-7	AEC
E-6	AE1
E-5	AE2
E-4	AE3

Trademan (TD)

Redesignate the General Service Rating, TD, a General Rating in all pay grades.

Disestablish, in all pay grades, the Emergency Service and Selected Emergency Service Ratings of TDI (*Instructor*) and TDR (*Repairman*).

Make the path of advancement for Trademen lead to Limited Duty Officer, Aviation Electronics.

The streamlined structure for TD will thus be:

Pay Grade	Rate
E-9	TDCM
E-8	TDCS
E-7	TDC
E-6	TD1
E-5	TD2
E-4	TD3

Aviation Guided Missileman (GF)

Disestablish the GF General Service Rating in all pay grades.

Transfer GF personnel to either the *Aviation Electronics Technician (AT)* or *Aviation Fire Control Technician (AQ)* ratings.

Transfer the functions of the GF rating to the *Aviation Fire Control Technician (AQ)*, *Aviation Electronics Technician (AT)*, and the *Aviation Ordnanceman (AO)* ratings as appropriate.

Photographer's Mate (PH)

Redesignate the *Photographer's Mate (PH)* General Service Rating a General Rating in all pay grades.

Disestablish in all pay grades the Emergency Service Ratings (including Selected Emergency Service Ratings) of PHG (*Camerman*), PHA (*Aerial Cameraman*), PHM (*Microfilm*), PHR (*Camera Repairman*) and PHL (*Laboratory Technician*).

Establish the following path of advancement: *Photographer's Mate* to LDO, Photography.



"Is the barber still on leave, Chief?"

Aviation Boatswain's Mate (AB)

Redesignate the General Service Rating of *Aviation Boatswain's Mate* (AB) as a General Rating at pay grades E-8 and E-9.

Disestablish the General Service Rating of AB at pay grades E-4 through E-7.

Disestablish in all pay grades, the Emergency Service Ratings (including Selected Emergency Service Ratings) of: ABG (*Gasoline Handler*), ABU (*Utility*) and ABA (*Airship Rigger*).

Establish, at pay grades E-4 through E-7, three Service Ratings: ABH (*Aircraft Handling*), ABF (*Fuels*), ABE (*Launching and Recovery Equipment*).

Establish the following path of advancement: Aviation Boatswain's Mates to Limited Duty Officer, Aviation Operations.

Aviation Electronics Technician (AT)

Redesignate the General Service Rating of *Aviation Electronics Technician* (AT) a General Rating in pay grades E-5 through E-9.

Disestablish, in all pay grades, the Emergency Service Ratings (including Selected Emergency Service Ratings) of: ATR (*Radar*), ATN (*Communications/Navigation Equipment*), and ATS (*ASW*).

Establish, at pay grade E-4, four Service Ratings: ATR (*Radar and Radar Navigation Equipment*), ATN (*Radio Navigation Equipment*), ATS (*Antisubmarine Warfare Equipment*) and ATW (*Airborne CIC Operator*).

Input to ATW is to come, initially, from personnel of the disestablished *Air Controlman W* (*Airborne CIC Operator*) (ACW) Selected Emergency Service Rating.

Establish the following path of advancement: Aviation Electronics Technicians to Limited Duty Officer, Aviation Electronics.

Air Controlman (AC)

Redesignate the General Service Rating of *Air Controlman* (AC) a General Rating in all pay grades.

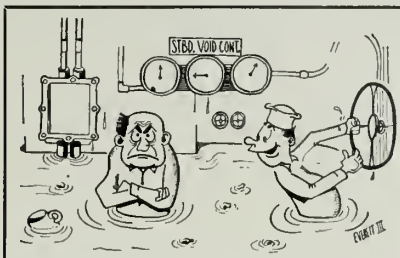
Disestablish, in all pay grades, the Emergency Service Ratings (including Selected Emergency Service Ratings) of: ACT (*Tower*), ACR (*Radar*), and ACW (*Airborne CIC Operator*).

Transfer the functions and personnel of the ACW to appropriate pay grades of the AT general rating,

All-Navy Cartoon Contest

Honorable Mention

G. W. Everett, IC3, USN



"Well that should take care of that port list, Chief!"

the ATW3 service rating or the AC general rating.

Establish the following path of advancement: Air Controlman to Limited Duty Officer, Aviation Operations.

Postal Clerk (PC)

Establish a general rating of *Postal Clerk* (PC) in all pay grades.

Add the *Postal Clerk* (PC) to Rating Group V—Administrative and Clerical.

Establish the following path of advancement: Postal Clerk to Limited Duty Officer, Administration.

Yeoman (YN)

Redesignate the *Yeoman* (YN) General Service Rating a General Rating in all pay grades.

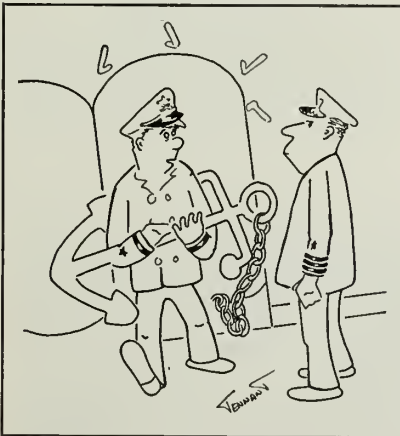
Disestablish in all pay grades, the Emergency Service Ratings: YNS (*Stenographer*), YNT (*Typist*), and YNM (*Mailman*).

Remove stenographic require-

All-Navy Cartoon Contest

Honorable Mention

T. H. Tennant, YNC, USN



"I won the anchor pool, but frankly I'm a little disappointed."

ments from the scope of the rating and indicate billet requirements for stenographic skills in complements and allowances by means of NECs.

Remove postal requirements from the scope of the rating and transfer them to the General Rating of *Postal Clerk* (PC).

Establish the following path of advancement: Yeoman to Limited Duty Officer, Administration.

Personnel Man (PN)

Redesignate the *Personnel Man* (PN) General Service Rating a General Rating in all pay grades.

Disestablish in all pay grades the Emergency Service Ratings of: PNI (*Classification Interviewer*), PNT (*Training Assistant*), and PNA (*Personnel Records Clerk*).

Establish the following path of advancement: Personnel Man to Limited Duty Officer, Administration.

Boat Owners Are Required to Have Craft Registered

If you have your own boat and it is powered by a motor—either inboard or outboard—rated at more than 10 horsepower, it must be registered and numbered under the Federal Boating Act of 1958.

The Coast Guard will issue numbers to boats registered in the 15 states and the District of Columbia which have not yet adopted their own numbering systems. These states are: Alaska, Connecticut, Georgia, Hawaii, Idaho, Maine, Massachusetts, Iowa, Nevada, New Hampshire, New Jersey, Pennsylvania, Tennessee, Wyoming and Washington.

You may obtain your application for the Federal Certificates of Number at any local Post Office. The completed form and a \$3.00 fee must be filed with the Post Office. At that time a blue, Federal Boating Stamp will be affixed to the application and a temporary certificate will be returned to you. This certificate will serve as proof of compliance with the law until the application has been processed by the Coast Guard.

The permanent Certificate of Number to be issued will be an embossed plastic card. It will show the number to be affixed to each side of the bow and must be on board when vessel is in use. A number

awarded by the Coast Guard will be valid from date of issuance and for three years from the date of your next birthday after the certificate is issued.

Application blanks may be obtained from any Coast Guard Marine Inspection Office, as well as at any Post Office, but the fees must be paid at the Post Office.

If your boat was previously numbered by the Coast Guard before 31 Mar 1960, you must apply for a new number under the Federal

Boating Act. Your previous number and certificate, however, may be retained for temporary identification until your new number is issued. Boat owners may continue to operate their craft legally if they have applied for renumbering, paid the required fee and retained proof.

Detailed information on the Federal Boating Act of 1958 can be found in the Coast Guard publication CG-290 "Pleasure Craft" which may be obtained from the U.S. Government Printing Office.

Register of USNA Alumni List Names, Addresses of Graduates

The 1960 edition of the Register of Alumni published by the U. S. Naval Academy Alumni Association is now ready for distribution. It lists every ex-midshipman who ever attended the Naval Academy from 1840 through the Class of 1959. Listed are 39,679 names.

Information on obtaining copies may be obtained from U. S. Naval Academy Alumni Association, Alumni House, Annapolis, Maryland.



FLASHY—USNS *Golden Eagle* (AF 52) trying out sea-going turn signals.

MSTS Tries Out Turn Signal Lights for Ships

If you have been seeing flashing arrows in the Atlantic lately, then you can relax. You're not suffering from fatigue nor are you seeing guided missiles or other modern-day mysteries of the sea.

These arrows are nothing more than experimental turn signal lights that the Military Sea Transportation Service has installed aboard the cargo ship *USNS Golden Eagle* to improve maritime safety.

The turn signals are flashed by *Golden Eagle* as she approaches an oncoming ship in order to indicate just which direction or course she intends to take.

Designed to be visible for three miles, the turn signals are composed of 28 bulbs, each 100 watts, enclosed in amber globes. They are mounted horizontally across the railings on the forward side of the flying bridge and can be seen by oncoming ships in a 120-degree arc.

The control panel for the signals is mounted on the forward bulkhead of the wheelhouse, forward of the binnacle. When the signal switch is thrown the lights flash for a period of 30 seconds, though additional settings can be made to allow for a longer maneuver.

The lights were fitted to *Golden*

Eagle on an experimental basis following the evaluation of lighted turn signals used for the past two years on a Dutch ship in the English Channel.

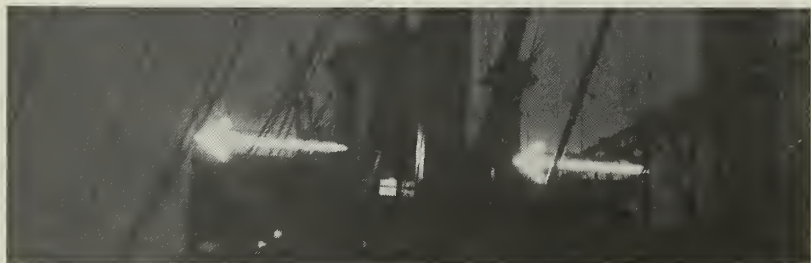
Reason for these tests is the mounting collision rate between ships working in heavy traffic during recent years. MSTS officials feel that many of these accidents are caused by misunderstood whistle signals. (There are approximately 45 large ship collisions each week.)

Mariners have traditionally looked for plumes of steam from approaching ships' whistles to determine the number of blasts which had actually been sounded. In the case of diesel powered ships using air whistles, no tell-tale steam accompanies the whistle signal and shipmasters and pilots have often been confused about the number of blasts actually sounded.

Additionally, skippers have often been tempted to give an extra yank on the whistle lanyard when they feel that the first blast might not have been heard by the other ship. This usually results in confusion and often an unnecessary collision.

While it is unlikely that there will be a flurry of activity in the passing signal industry, MSTS is anxious to learn the reaction to *Golden Eagle's* signal lights. Ships observing them are urged to pass along their comments.

The Coast Guard, meanwhile, is studying the use of synchronized whistle-light signals on ocean-going ships. This type of signal has been required on the Western Rivers, but so far is merely optional on deepwater ships.



DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ **BOONE**, Walter Frederick, ADM, USN, for exceptionally meritorious service to the Government of the United States in duties of great responsibility as United States Representative on the North Atlantic Treaty Organization Military Committee and Standing Group from April 1958 to February 1960, and previously, as Commander in Chief, U. S. Naval Forces, Eastern Atlantic and Mediterranean, from March 1956 to February 1958. In his role as the Representative of the U.S. Joint Chiefs of Staff, he exercised unusual professional acumen in upholding and advancing the interests of the United States in the NATO forum. In his capacity as a Specified Commander, Commander in Chief, U. S. Naval Forces, Eastern Atlantic and Mediterranean, Admiral Boone displayed a comprehensive grasp of the vast number of complex and delicate problems confronting him, thereby contributing essentially to the stability of that area and to the continuing prestige of the United States.



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service in the Government of the United States . . ."

Gold Star in Lieu of Second Award

★ **MILLER**, William, RADM, USN, for exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States as Director, Strategic Plans Division, in the Office of the Chief of Naval Operations from 2 Dec 1957 to 7 Oct 1958, and as Assistant Chief of Naval Operations (Plans and Policy) from 7 Oct 1958 to 10 Dec 1959. Taking a leading role in establishing and organizing the Navy Department's Cold War Advisory Panel, RADM Miller assumed the chairmanship of this group in 1958, and immediately established lines of coordination and communication between the Panel and numerous governmental, civilian and military groups dealing in cold war matters. Under his

outstanding leadership, the Cold War Advisory Panel made major strides in acquainting both the Navy and the public with the nature and depth of the cold war threat to the United States.

★ **BOND**, George F., CDR, MC, USN, for exceptionally meritorious conduct in the performance of outstanding services in connection with trials of the buoyant ascent method of submarine escape in waters off Key West, Fla., during the period 28 Sep to 2 Oct 1959. Repeatedly braving the hazards of rapid compression and decompression in performing these tests in the open sea at depths in excess of 150 feet, CDR Bond, utilizing a method of escape not previously tested at these depths, succeeded in carrying out a buoyant ascent from a submarine at a depth of 302 feet. Through this record-setting exploit, he not only helped to prove the feasibility of this method of escape from disabled submarines at a similar depth, but also contributed essentially to the safety and morale of submarine personnel.

★ **WALSH**, Don, LT., USN, for exceptionally meritorious conduct in the performance of outstanding services from January 1959 to January 1960 as Officer-in-Charge of the Bathyscaph *Trieste*. Throughout this period, Lieutenant Walsh exercised marked professional skill and resourcefulness in carrying out an important assignment. During deep-diving operations in the Marianas Trench, he successfully completed a series of record-breaking dives, culminated by a dive to the unprecedented depth of 37,800 feet on 23 Jan 1960.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ **BLOOMER**, George M., AN, USN, for heroic conduct on 15 Jun 1959 while serving with Helicopter Squadron Two (HU-2), Detachment 45, on board *uss Essex* (CVA 9) at sea. Participating in the helicopter rescue of a critically injured, jet-fighter pilot who had ditched his aircraft in the turbulent seas, Bloomer, aware of the hazards involved, leaped from a height of 20 feet from the hovering helicopter into the floating debris of the crashed plane and swam to the side of the uncon-

scious airman. Despite the extremely choppy waters and rotor blast, he managed to secure the victim to the rescue seat and safely into the helicopter.

★ **CRIPPES**, John J., BM1, USN, for heroism while serving with Mare Island Naval Shipyard, Vallejo, Calif., on 6 Aug 1959. En route from Vallejo to his home in Antioch he encountered a gasoline tank truck and trailer that had plunged off an elevated highway into a schoolyard below and overturned. On determining from onlookers that the driver was still in the cab, Crippes immediately rushed down the embankment and, while standing in a pool of gasoline, singlehandedly tried to extricate the trapped victim from the wreckage. When the gasoline ignited, he vainly continued his rescue efforts until the truck literally exploded hurling him away from the conflagration and inflicting severe burns on his body.

★ **HILL**, Oscar A., BMCS, USN, for heroism while serving on board *uss Salinan* (ATF 161) in waters off Andros Island, the West Indies, on 30 May 1959. When a shipmate was struck and knocked over the side of *Salinan* by a one-inch wire which had jumped out of the stern rollers and swept across the deck, Hill immediately dived overboard, swam approximately 100 yards to the victim, and kept him afloat until another rescuer, with a life-ring, swam to them to give further assistance. With the buoyancy of one life-ring insufficient to hold them up, Hill attempted to obtain additional rings which had been tossed from the ship. Although in a state of almost complete exhaustion, he persevered in his efforts until he observed the ship's whale boat proceeding to pick up the other two men.

★ **KOHL**, Orlin A., SFC, USN, for heroic conduct on the afternoon of 20 Oct 1959 while serving on board *uss Tringa* (ASR 16). When *Tringa* maneuvered to get alongside a one-man liferaft occupied by a downed Air Force pilot, who was lying face downward and entangled in his parachute, the liferaft capsized, tossing the airman into the extremely choppy seas. With the victim's parachute dragging him beneath the surface, Kohl dived into the water, brought the man to the surface, and began cutting away the parachute. Assisted by a shipmate, he secured a line around the pilot, who was then hoisted to safety by members of the crew.

BOOKS

SOMETHING FOR EVERYONE IN THIS MONTH'S LIST

SOMETHING TO PLEASE almost everyone can be found in this month's list of books chosen for comment on this page. You'll find some or all of them at your ship or station library.

Grant Moves South, by Bruce Catton, will be of great interest to Civil War fans. Here, the author of *A Stillness at Appomattox* and *This Hallowed Ground* tells of the military career of Grant from the time when, in 1861, he was called from retirement as a Colonel until, in 1863, as a Major General, he captured Vicksburg. Stationed first in Illinois, Grant was ordered to move South in May 1861; with the capture of Fort Donelson, he gained a confidence that he had earlier lacked.

After Donelson, came his string of victories and defeats, tough marches through swamps, mud and rain; river campaigns and gunboats; the battle of Shiloh and, finally, the capture of Vicksburg. Catton also reports in these campaigns the jealousies of Grant's higher officers and interference by politicians. As Catton treats this period of Grant's life, war has little glitter and the men fighting it are tired, sweating, frightened soldiers, not strutting heroes. Readable and realistic.

The Little War of Private Post, by Charles Johnson Post, brings us somewhat forward in time. *Little War* is the memoir of a foot soldier in the Spanish-American War who happened also to be a first-rate artist and who carried his sketchbook along with his gun. It is the little man's view of the invasion of Cuba in June 1898, from the moment that Post passed his jump test, coughing

test and eyesight test and thus became a soldier, to the day he returned to New York gaunt and fever-ridden—the first man back from San Juan Hill. Personal impressions instead of documented history, this memoir makes the "little" war just as real and just as grim for the men who fought it as any of the big ones.

Two books, **The Far Shore**, by RADM Edward Ellsberg and **My Life**, by ADM Erich Raeder, are concerned with World War II. *Far Shore* is a personal experience story of the American part in the great Normandy invasion. ADM (then Captain) Ellsberg was assigned to the English Channel area where the great artificial harbor was waiting to be towed on D-Day to the Far Shore of Omaha Beach. ADM Ellsberg, it appears, discovered a terrifying miscalculation that might have wrecked the entire undertaking and it was primarily because of his persistence that, through the intervention of the highest British authority, the error was corrected. The rest of the book is concerned with the Channel crossing on D-Day, with its tragic mistakes, its remarkable heroism, near defeat by the sudden storm and, finally, the ultimate landing and the defeat of the Nazi defenders.

In his memoirs, Admiral Raeder, as Supreme Commander of the German Navy portrays the resurgence and rebuilding of the German Navy under the restrictions imposed by the Versailles Treaty following World War I. He gives an account of German naval operations during World War II and of his concept of the over-all strategy for the conduct of the war. His frequent disagreements with Hitler on naval strategy eventually led to his resignation in 1943. He also has a few words to say about the conduct and outcome of the Nuremberg Trials. Good reference material for German naval strategy and doctrine from World War I through World War II.

Turncoats, Traitors and Heroes, by John Bakeless, takes us back a bit in time and to a vastly different atmosphere. *Turncoats* is concerned with spies in the American Revolution, and the author makes the point that the silent war of that time was

just as grim and ruthless—and essential—as present-day espionage. Granted that spies do not, as a rule, write too many reports or memoirs, Bakeless' story, which is based largely on the papers of Sir Henry Clinton, is remarkably complete. As Clinton was a general of the British Army, most of the spies described are, of necessity, the more successful British ones. There were Dr. Benjamin Church, of Boston, who worked for both sides; the illiterate Ann Bates, called the "most successful woman spy in history;" Nehemiah Marks, who found out how Washington received his secret mail. And, of course, Benedict Arnold, Major Andre, Nathan Hale and Paul Revere are included.

Another behind-the-scenes book is **The Invisible Presidency**, by Louis Koenig. Koenig examines the roles of seven men, ranging in time from the era of George Washington to the present, who at a critical period in history, acted as Presidential assistants and, as such, exerted far more power than the electorate ever visualized. A little startling.

Two fiction titles are offered. **Trustee from the Tool Room**, by the late Nevil Shute, is somewhat off-beat as to subject matter but by an author whose techniques and methods of treatment are fairly well established. The theme concerns a "little" man who is thrust into greatness through his search for a sizable fortune in diamonds.

Trask, by Don Berry, is concerned on the surface with a tale of the opening of the Oregon country in the early 1840s. However, in addition, it is an excellent story of the relations between Indians and whites, as well as a description of the character development of the protagonist, Trask.

18th Century Sailor



Early 19th Century Sailor





NAVY'S

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**ALL HANDS
SPECIAL
SUPPLEMENT**

The idea of combining Army and Navy sea transportation under a single command was discussed as far back as the Mexican War (1846-1848). It came up again during the Spanish-American War (1898), and from time to time after that until MSTs became a reality, approximately a century later.

The basic concept—that the military be permitted to control and operate the ships required for military support—was endorsed by Congress in 1903.

Coordination got a boost in 1941, when the Joint Army-Navy Planning Committee proposed that Army transports be transferred to the Navy, and the Secretaries of both services approved. Some ships were transferred, but the plan was abandoned when it was found that personnel ceilings prevented the Navy from manning all the Army vessels.

As a result, the United States went into World War II with the Army and the Navy retaining their individual shipping services. Throughout the war there were four activities controlling merchant-type shipping: the Army Transport Service; the Naval Transportation Service; the War Shipping Administration; and the Fleet Service Forces.

All support shipping was pooled and controlled by the Joint Military Transportation Command in Washington and through committee organization of the War Shipping Administration, Army and Navy at the port level.

Shortly after World War II the wheels started rolling again, resulting in the establishment of the highly successful MSTs organization. Here is the story, derived in

large part from the publication "The United States Navy's Military Sea Transportation Service: Service to the Services," published by the Navy Department.

IN MAY 1946, the Joint Chiefs of Staff directed that a study be made of the procedures necessary if the Navy were to be assigned the single responsibility for an ocean transporting organization.

Three years later—on Oct 1, 1949—the Military Sea Transportation Service came into being. Established within the Navy, it was given a status comparable to that of a Fleet operating directly under the Chief of Naval Operations, and RADM William M. Callaghan, later VADM, was assigned as the first Commander Military Sea Transportation Service with headquarters in Washington, D. C.

Each of the Services concerned was to pay for its respective sea transportation requirements on the basis of the shipping ordered and rendered.

Service to the Services

THE MILITARY SEA TRANSPORTATION SERVICE is a component of the U. S. Navy and was established to provide, under one authority, all ocean transportation for the Department of Defense.

The mission of MSTs is threefold. Briefly, it can be summed up as follows:

- To provide sea transportation for personnel and cargoes of the Department of Defense (excluding personnel and cargoes transported by units of the Fleet).
- To plan and negotiate for use of commercial ship-



MSTS TO FREEDOM—MSTS ships evacuate those fleeing communism, such as Viet-Nameese (left) and Hungarians.

ping to augment the MSTS nucleus fleet as necessary.

- To plan for and be capable of expansion in time of war.

Although MSTS is run by the Navy, three features of its operations distinguish it from any other operational force in the Navy.

The first, of course, is the fact that MSTS provides ocean transportation not just for the Navy but for other DOD agencies as well. In this respect, MSTS may be considered the oceangoing counterpart of the Military Air Transport Service (MATS), with one very important difference. MATS is operated by the Air Force, but personnel, planes and equipment are contributed by both the Navy and the Air Force. In contrast, all ships and equipment of the MSTS nucleus fleet belong to the Navy.

MSTS operations are at once military and industrial in character. It employs both marine civil service and military personnel afloat—sometimes on the same ship. It conforms closely to the instructions and standards formulated by the Coast Guard, the American Bureau of Shipping and the Public Health Service. There is close cooperation with the Maritime Administration.

It also relies heavily on the commercial shipping industry to augment its lifting capacity, thus helping to maintain a healthy Merchant Marine in a state of readiness for emergencies. The extent of this reliance is best illustrated by the fact that 78 per cent of MSTS' 1958 operating expenses of 425 million dollars was paid directly to the maritime industry—berth-line operators, tramp ship operators, commercial operators of Government-owned ships, and private ship repair yards.

USNS Point Barrow (AKD) resembles LSD but is specially built cargo ship (dock) for operations in the icy Arctic.



Trial under Fire

THE ABILITY TO FULFILL its mission was demonstrated during the Korean conflict. When the shooting started, MSTS was less than a year old and was in the process of organizing itself.

At that time the only MSTS ships in operation were those necessary to fulfill normal requirements. All other vessels were laid up in the Reserve Fleet.

Faced with a staggering requirement for sea transportation, MSTS, in collaboration with the National Shipping Authority and commercial shipping industry, took drastic steps to put ships on the line for operations.

Thirteen civilian-manned troopships and eight USN civilian-manned cargo ships were broken out of the National Defense Reserve Fleet. Three commissioned troopships and 12 cargo ships were broken out of the Navy Reserve Fleet.

In addition, 243 cargo ships were broken out from the National Defense Reserve Fleet and were assigned to MSTS. A total of 308 vessels were taken out of mothballs and assigned to ship repair yards for activations resulting in a major increase in the capability of MSTS to support Korean military operations.

During the Korean conflict MSTS sealifted a total of more than 54 million tons of cargo, nearly five million troops and passengers and more than 22 million long tons of petroleum products to the Far East. This represented more than 85 per cent of the fighting forces and equipment used.

In addition to the sealift support of our forces in Korea, MSTS met the other normal, day-to-day sea transportation military requirements in all other parts of the world.

MSTS vessels also participated in operations not normally expected of non-combatant units. Under temporary command of the Naval Amphibious Forces, MSTS ships participated in the landings at Inchon, Iwon and Wonsan. More than 190 MSTS ships participated in the UN's evacuation at Hungnam, where more than 105,000 military men, 91,000 Korean civilians, 17,000 vehicles and approximately 350,000 tons of supplies were safely loaded aboard and delivered to UN-held territory.

Korea was not the only crisis for MSTs. Almost without warning, 300,000 Viet-Namense chose to leave their homeland by a sealfit exodus in order to avoid life under Communism. Just as spontaneous was the uprising on the other side of the world with thousands of Hungarian refugees requiring sealfit to the United States. Nor was the closing of the Suez Canal predicted; with the necessary evacuation of Americans from the Middle East and the sudden shortage of tanker bottoms.

Even the normal operations are hardly to be considered routine. The job of delivering defense materials to the Arctic is one to which MSTs likes to point with pride. Pushing its way into waters never before cut by deep-draft ships, MSTs has sealfited the materials necessary to complete the early warning, trans-Arctic electronic defense chain.

Numerous other operations have prevented MSTs activities from becoming dull: Downrange sealfit support of Air Force missile tests; participation in the Navy's Operation Deep Freeze; gyroscope movements of Army elements, complete with their dependents and material; sealfit of United Nations troops; European migration lifts; Texas Tower resupply; mules to Greece; mosquito-eating fish to Guam, Italian statues to the United States; and patients in iron lungs.

In spite of these varied operations, there has been continued self-improvement in such fields as safety, damage control, sanitation, technical advancement, and construction of special purpose ships.

Operation Sealift

THE ARCTIC OPERATIONS of MSTs deserve more than just a passing mention.

In support of outposts in the Arctic, MSTs has sealfited more than five million tons of cargo to the Far North since 1950.

This special mission, called "Operation Sealift for Security," reached its peak during the 1955-57 operations. This polar assault was made to supply men and materials for the construction of the Distant Early Warning (DEW) radar system which stretches across the entire Arctic fringe of North America.

HOT SPOTS—MSTs ships delivered supplies at Lebanon and (Rt.) participated in the invasion of Inchon, Korea.



BARRELING ALONG—USNS *American Explorer*, one of MSTs's king-size tankers, has 190,000-barrels capacity.

In spite of the worst ice conditions ever recorded in the Arctic, MSTs sealfited more than one million tons of cargo and building equipment, plus 10 million barrels of petroleum products to the DEW Line sites.

MSTs also sealfited more than 50,000 tons of building material and equipment to the Air Force's Ballistic Missile Early Warning System (BMEWS) installation since construction began in Thule, Greenland, in 1958.

All this would not have been possible without the benefit of eight years' experience in polar logistics. MSTs began arctic operations in 1950 when it began the "Seaborne Supply of the North East Command" (SUNEC) in the Labrador-Greenland area.

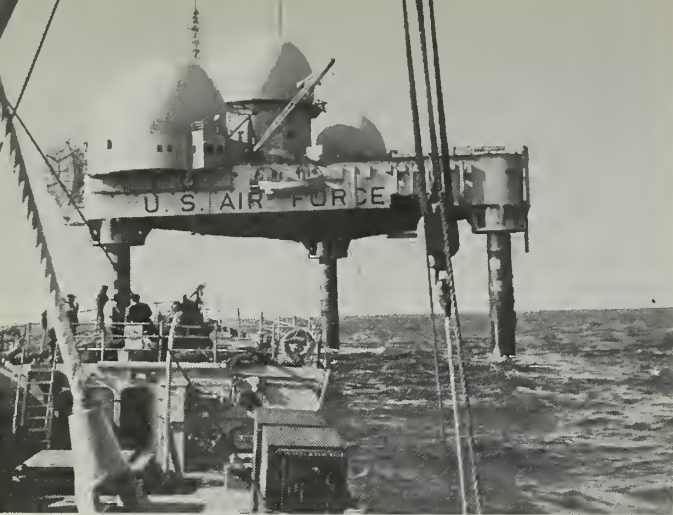
In 1951 over 50 MSTs-controlled ships in support of operation "Blue Jay" transported materials and personnel to build the Air Force Base at Thule, Greenland. Also at that time, the defense sites at Baffin Island and Labrador were established.

One of the smallest, yet one of the most interesting, phases of MSTs Arctic Operations is the resupply of the Pribilof Islands in the Bering Sea. Each year, supplies are sealfited to the U. S. Government's sealing stations on barren St. George and St. Paul Islands. The seal products returned to the States are worth more than the material carried to the Pribilofs.

In 1957, the long-sought-after Northwest Passage became a reality. Since the 1500's, man has sought a practical deep-draft water passage across the top of North America.

MSTs had to develop such a passage as a possible escape route for MSTs ships which found an ice block-





TOWERING—USAF-manned Texas Tower at Georges Bank receives supplies from MSTs ship USNS AKL 17.

ade across their normal route out of the Arctic. Under the direction of VADM John M. Will, USN, an MSTs task group in 1957 charted such a route at the top of North America's mainland, through Bellot Strait and its approaches from the westward through Rae, James Ross and Franklin Straits.

Ship Status in MSTs

MSTs ships are United States naval vessels and are included in the official "List of Naval Vessels." They fly the Union Jack from the jack staff just as other U. S. Navy ships.

MSTs vessels are classified into to major categories: those "in commission" and those "in service."

Currently, MSTs operates only four "in commission" ships. They are the passenger transports *Breckenridge*, *Mitchell*, *Mann* and *Randall*. These five ships carry the prefix USS (United States Ship) and fly the Commission Pennant in addition to the jack. They are manned by Navy officers and enlisted men.

All other ships under MSTs operational control are "in service" vessels and carry the prefix USNS (United States Naval Ship.) They are manned by civilian crews.

All USNS tankers, with the exception of the ice-strengthened *Alatna* and *Chattahoochee*, are operated by

commercial shipping companies employing their own merchant marine crews.

A USNS ship is identifiable on sight by a blue and gold band on the stack. The stacks of the five "in commission" transports are topped by a single black band.

Custom-Designed Ships

TO MEET THE MANY varied and unusual sealifts that MSTs undertakes yearly, several custom-designed ships have been built.

One of the most revolutionary of these special purpose USNS ships is the *Comet*. She is the first ship of her kind to be specifically designed and constructed from the keel up as a roll-on, roll-off vehicle cargo ship.

This roll-on, roll-off prototype was built to provide quick, convenient sea transportation for large vehicle lifts to overseas bases.

Besides the feature of fast loading of military vehicles and short turnaround time, *Comet* offers a means of lifting cargo without breaking bulk, a feature which has interested private industry for some time.

Another important factor about the vessel is the ship's dual use—it can transport vehicle or general cargo, and conventional cargo-handling gear gives the ship everything a conventional cargo ship has.

Comet was designed to lift one-sixth of the equipment of an Armored Division, including trucks, jeeps, tanks and gun mounts, a total of approximately 700 units.

She is capable of rapid loading and discharging of vehicles under their own power through four side ports and one stern ramp. When the loading of the ship is completed, the drivers and their trucks will have accomplished in a matter of hours what probably would have taken several days if the trucks had been loaded by conventional means.

No dockside or floating cranes are required at either end of the voyage.

During the Lebanon crisis, *Comet* transported an entire tank battalion from Bremerhaven, Germany, to Beirut, using the roll-on, roll-off method of on- and off-loading.

• Another bulk transportation problem that faced MSTs involved the movement of lighterage and landing craft in the ice-laden waters of the Arctic. To meet this

TWO MANNs—Passenger ship USS General W. A. Mann (left) moors with missile tracker USNS Pvt. Joe E. Mann.



need, an ice-strengthened cargo ship (dock), USNS *Point Barrow* (AKD), was built.

Resembling a Navy landing ship dock, the prototype's hull is fitted with an ice belt to withstand the crushing force of heavy ice formations.

Point Barrow encompasses in her construction a number of lessons learned in polar operations. Combining ice-breaker ruggedness with LSD carrying capacity, the AKD is built to deliver lighterage and landing craft to many of the Arctic sites that MSTs services annually.

- Also specially designed for the delivery of bulk petroleum in the Arctic and Antarctic are the AOGs USNS *Alatna* and *Chattahoochee*.

These ice-strengthened tankers are heavily reinforced twin-screw bulk petroleum carriers capable of transporting diesel oil, heavy and aviation fuel, avgas and motor gas virtually anywhere that ice-breakers can go.

Designed for dependable cold weather operations, the *Alatna*-class AOG is a rugged, easily maneuverable ship, able to withstand heavy weather and icing and yet easy to maintain.

- MSTs' three T-AK 270 class ice-strengthened small cargo ships, USNS *Eltanin*, *Mirfak* and *Mizar*, are built to lift cargo into remote polar regions which flat-bottomed LSTs and other vessels are unable to negotiate.

Equipped with fast-acting cargo-handling gear for both reefer and general cargo, the *Eltanin*-class AK is built to work through heavy ice and provide satisfactory stability even after damage to one compartment.

With all-welded steel construction, raked ice-breaker type bow, and modified cruiser-type stern, the T-AK 270 class cargo ship meets the requirements for successful steaming in polar waters.

- MSTs also has in operation five custom-built tankers. Classed as T-5s, USNS *Maumee* (T-AO-149), USNS *Potomac* (T-AO-150), USNS *Shoshone* (T-AO-151), USNS *Yukon* (T-AO-152) and USNS *American Explorer* (T-AO-165) have the largest cargo capacity of any ship in the MSTs fleet.

These 25,000-deadweight-ton T-5s have a cargo capacity of 190,000 barrels in a four-product system. Their cruising speed is 18 knots and they have a range of 18,000 miles.

The *Maumee*-class tanker follows the worldwide commercial trend of increasing the standard size of tankers from 16,000 tons to 25,000 deadweight-tons and above. Like its commercial counterparts, the *Maumee*-class T-5

can carry more petroleum farther at less cost than the smaller and slower T2s.

MSTs' cargo ship and tanker prototypes represent a compromise between specialization and practicality.

- Today's interest in space exploration has added another responsibility to MSTs' role in defense logistics and support. Ships of the Military Sea Transportation Service, already at work exploring the oceans, have now been committed to additional activities which include tracking and recovering missiles and boosters; following the track of satellites; and many other assignments as yet unannounced.

One off-beat function of MSTs is its transportation of aircraft to Europe and the Mediterranean. Home port for the operation is Mobile, Ala., which is also home port of USNS *Card* (AKV 40) and *Croatan* (AKV 43). The two MSTs carriers keep up a steady flow of U. S. European-bound aircraft shipments.

Located at the head of Mobile Bay, 30 miles inland from the Gulf of Mexico, the port has facilities for rapid loading and quick turnaround. It is also one of three Army supply points on the Gulf Coast and is the sole port for a number of Air Force bases in the Deep South. Aircraft from all three armed services is lifted from nearby Brookley Air Force Base.

Before overseas shipment, the planes are inspected and treated with a sea-spray cocoon for protection against salt spray and moisture. Under this joint MSTs-Air Force program, shipping planes in a partially disassembled form instead of flying them overseas, has proved to be economical.

One of the programs Mobile handles is the seaborne transportation of aircraft to Military Assistance Program countries in Europe and the Mediterranean area. On return trips, the two carriers lift Air Force planes to Brookley AFB for overhaul.

Facts and Figures

In a decade of service to the services, MSTs-operated ships have sea-lifted more than:

178 million measurement tons of cargo

14 million passengers

1 billion barrels of petroleum products

MSTs ships, sailing the seven seas, have participated in more than 400 mercy missions and rescues at sea.

MSTs ships have carried over a quarter-million refugees to new homes.

SPECIAL project MSTs ships include missile retriever USNS *Haiti Victory* and (Rt.) oceanographic ship USNS *Chain*.



TAFFRAIL TALK

The Commissary Store at NAS Pensacola has a pleasant custom we'd like to pass on to interested parties. Near the entrance is placed the Fish Bowl, containing a handful or two of small change for the convenience of customers who found themselves a few cents short while shopping.

Loans are limited to \$1.00 and patrons are on an unspoken honor system to return promptly any amount borrowed.

Granted, the practice is not of earthshaking importance, but it is customs such as these that are hopeful signs for the future of our peculiar style of civilization.

★ ★ ★

Another, more widespread naval custom also gives us reassurance as to our country's future. The Navyman has traditionally been openhanded and generous, but we can't help but feel that the practice is growing.

As we get the picture, more and more ships and overseas activities are going out of their way to extend a hand of friendship to all those they meet. Most such gestures are considered of such little importance they aren't even reported. Many a ship's crew quietly digs into its pockets each payday to help support an overseas orphanage or school. Another will "adopt" a youngster and assume complete responsibility for his food, clothing, shelter and education.

Such actions, however, are not confined to Navy men. It's a popular avocation of the entire "materialistic" American public. That's why we'd like to refer—as an example only—to the quasi-official activities of USS *Eldorado* (AGC 11) on its recent tour to the Far East:

Before she left San Diego last November, *Eldorado* took on board some 147,000 "Meals for Millions" which consisted of canned dehydrated, high protein food supplements bought by school children throughout the United States and by *Eldorado* crew members.

At Pearl Harbor, the staff spaces of Commander, Amphibious Group One, who was embarked for the cruise, were used to store an additional 20,000 cubic feet—40 tons—of relief material. This had been collected by the Japanese Relief Society of Hawaii for the typhoon-stricken families of the Nagoya, Japan, area which had suffered severely from typhoons last fall.

Loaded onto the already crowded ship were medical supplies, clothing and household appliances. The material joined other, similar cargo. Somewhere amongst it all was a 1960-pickup truck that had been donated by a San Diego church for a Korean orphanage.

The majority of the clothing, food and other materials went to the victims of typhoons that struck Taiwan and neighboring islands. Another large part went to Japan.

But not all. Some 86,000 Meals for Millions were unloaded at Hong Kong, along with 400 pounds of clothing, 2000 penicillin tablets and 1000 packages of bottles of medicines and antibiotics. These medical materials had been collected by the ship's Chaplain, who had scrounged them from San Diego doctors.

Materialistic? Sure. We're proud to be as materialistic as *Eldorado*.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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The Bureau invites requests for additional copies as necessary to comply with the basic directives. This magazine is intended for all hands and commanding officers should take necessary steps to make it available accordingly.

The Bureau should be kept informed of changes in the number of copies required.

The Bureau should also be advised if the full number of copies is not received regularly.

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• AT RIGHT: SMILING faces of carriermen from USS *Franklin D. Roosevelt* (CVA 42) indicate good times ahead as the liberty launch shoves off for the famous Italian port of Naples.





GOING PLACES
in the Navy

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



This magazine is intended
for 10 readers. All should
see it as soon as possible.
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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JUNE 1960

Nav-Pers-O

NUMBER 521

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The Chief of Naval Personnel

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- AT LEFT: BRIDGE HANDS—LCDR Paul Corrigan, USN, Nick Triantafyllou, SN, USN, and Walton Guffy, BM1, USN, stand flag watch as USS Northampton (CLC 1) cruises North Atlantic.
- FRONT COVER: MAESTRO OF THE PIPE—L.T. Squires, BM1, who will be chief by the time you read this, passes on some of the fine points of piping to leading side cleaner, G.M. Cable, BM2, in Bos'n's Locker of USS Northampton (CLC 1).
- CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.



USS Northampton Goes

IF YOU JOINED the Navy to see the world, a recent cruise by USS *Northampton* (CLC 1) would have been just the ticket for you.

Northampton visited Palma, Majorca, in the Med; Greenock, Scotland; Bodo, Norway (long glass liberty except for official calls); Oslo, Norway; Stockholm, Sweden, and Portsmouth, England — finally returning to home port in Norfolk, Va.

Sounds like an interesting cruise—and it was. It gave many crew members on board *Northampton* their first look at most of these places, and it gave the people a chance to come aboard and visit.

Here's a quick look at the cruise and some of the activities that went on at each stop:

PALMA LED OFF. When *Northampton* moored, liberty call was sounded and off they went. Tours of this island in the Mediterranean had been set up in advance and hun-

dreds of ship's company took advantage of the packaged tour. Athletic teams went ashore and played before good-sized crowds. Officers and men attended divine services ashore; the ship's chaplain was invited to preach ashore and a local padre held services on board. There were official calls and unofficial meetings. A special party was held on board for a large group of orphans.

Highlight of the Palma visit, according to many of the crew, was a tour of a medieval cathedral. The famous horse-drawn carriages came in for their share of interest, too, as shown by the number of cameras turned on by ship's shutterbug enthusiasts.

Then, *Northampton* sailed out of the Med, through the Strait of Gibraltar, and headed north, up through the Irish sea, and into the Firth of Clyde to Greenock, Scotland, for a pleasant stopover.

GREENOCK WAS A BRIEF STAY, lasting only two days—but it set a pattern of friendliness and good relations that lasted the entire trip. The amazing hospitality of the Scots and their genuine liking for U. S. Navymen and Marines was demonstrated everywhere.

Before going ashore the dental technicians and hospital corpsmen of the ship got together. They had money set aside for a division party. "Why not," someone said, "use this money to give a party ashore—for some children?" They did just that. They went to a hospital—naturally enough—and arranged for movies, refreshments, and gifts for each child.

The response of the local youngsters (most of whom will be hospitalized for a long time) was so great that the HMs and DTs went further—they took up a collection among themselves for another party for the children after the ship sailed.

These men had asked that there be no publicity. However, the local reporters heard of it and one said: "... it makes a warm-hearted story for a cold Wednesday morning." Another news account used the words "hospitality, co-operation, friendliness."

Greenock was an all hands evolution under a full head of steam. Several hundred men took a bus trip that went through Greenock, up to Glasgow, and clear across to Edinburgh—returning by a different route.

A highly successful dance was held at Greenock's Palladium. Ship's company participated in traditional Scottish dances and the band came along to play traditional Scottish music, as well as modern tunes.

Royal Navy CPOs invited *Northampton* chiefs ashore for a big evening. More than 2000 Scots visited the ship.

How did the crew enjoy Greenock? Let's put it this way: About every Navyman you saw during those two days ashore had a smile on his face.

THEN *Northampton* sailed north. Still further north—across the Arctic Circle to the west coast of

Visiting

Norway near Bodo (pronounced something like "Booda").

Then down the coast of Norway went the newly certified Bluenoses of *uss Northampton*, and through a foggy Oslofjord to moor starboard side to at an Oslo pier, after a 21-gun salute to the nation and another 21-gun salute to the king.

In Oslo the word was passed to man the rails. The Marines were topside as a guard of honor. The band was standing by. Sideboys were called away. Up along the pier, through the snow, came a car.

"Norway, arriving," was the word. Olav, King of Norway, came up the ladder with the boatswain's mate piping him aboard, the sideboys at the salute. He was received by the admiral, captain and officer of the deck. The band played ruffles and flourishes. The chief musician saluted, the Marine guard saluted, and the official call had begun.



KING-SIZE WELCOME—*Northampton's* crew render honors for Norwegian king.

Many dignitaries came aboard. The U. S. ambassador received ruffles and flourishes, salutes and honors—as did the other high officials making their calls—while the band played on.

SKIING WAS THE NUMBER ONE sport for the U. S. Navymen visiting Oslo. The Norwegian army, through their Special Services department, supplied *Northamptonmen* with equipment. Buses took the men high above the city into the deep snow.

Maybe it was the scheduled tour that was the number one deal in Oslo. At any rate, each bus was crowded. Sailors saw original Viking ships in the famous museum. They

saw the Kon-Tiki raft and museum. They walked through Frogner Park and saw the world-famous Vigeland statues. They saw the buildings and monuments of Oslo. And—they went shopping.

Meanwhile, the Marines went with the admiral to participate in a wreath-laying ceremony at Akershus Fortress, where there was an impressive two-nation military show of respect for the honored dead of Norway—a Norwegian guard of honor also being present.

Visitors? They came aboard in droves. On part of their tour they saw an unusual display. This was an exhibit of panels of pictures of offi-

STRANGE SIGNS—Navy souvenir hunter looks over wares in Swedish store.





OSLO AHEAD—Norwegian tug moves *USS Northampton* into position for warping to pier as the snowy city of Oslo prepares to welcome the crew of the CLC.

cers and men of the ship, together with individual pictures of their families, and views of their home towns in the States.

Norwegian naval personnel were guests in the General Mess; a party was held aboard for orphans, with movies and refreshments; athletic

events were held—all this in three action-packed days.

Once again the local press, radio and TV featured *Northampton* and her crew in flattering terms.

NEXT, *Northampton* sailed through the narrow sound between Denmark and Sweden into the Baltic

Sea. Then up the east coast of Sweden where she was met by *HMS Oden*, a Swedish icebreaker. *Oden* and *Northampton* twisted and turned past island after island of the Stockholm Archipelago, with thick ice on all sides. Finally, off Waxholm Island, *Oden* backed and filled and broke an anchorage out of the ice, into which *Northampton* came and dropped the hook.

Fifteen minutes later, ship's company were walking around the ship. And, a quick decision by Captain Harold G. Bowen, Jr., the commanding officer, made it possible for general visiting by Swedish nationals. They traveled across the iced-over bay on foot, on skis, by motorcycle, by auto. They were invited aboard—for what is possibly the strangest visiting hours ever held by any ship.

Some Swedes had stamped out on the snow cover a message: "Hi, Welcome to Sweden." This friendly greeting, and the impromptu visiting, set a pattern for what many said was "one of the most interesting liberty ports" they had ever seen.

Northampton was scheduled to

This Is the Navy's 'Number One' Tactical Command Ship

uss Northampton (CLC 1) is unique. She's the one and only ship of her type in the Navy. Some of her gear and some of her tasks are also unique. *Northampton* is Number One in quite a few ways.

Basically, *Northampton* is a command ship in a cruiser hull. As a cruiser, she has built-in flexibility that allows her to shift rapidly from one type of operation to an-

other. She could operate in an attack carrier striking force; in a surface striking group; in shore bombardment and amphibious operations; control aircraft over a force—in short, as a cruiser she has mobility and power; as a command ship she can shift to command practically any type of operation the Navy would be involved in.

"She's a cruiser, but different," one of her ship's crew says.

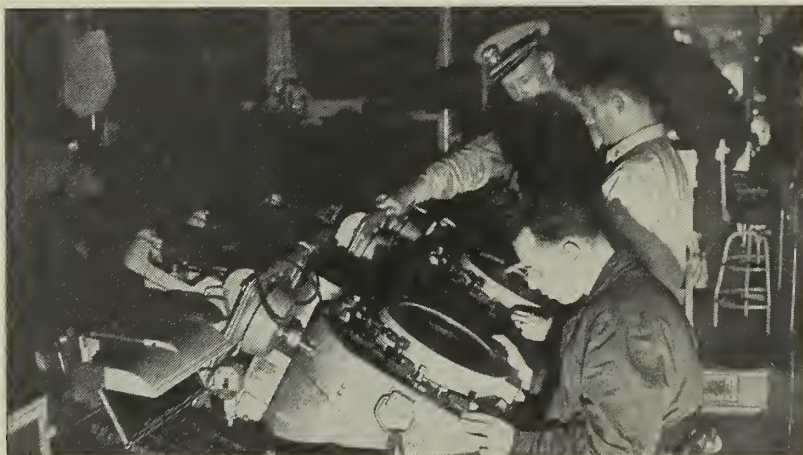
"She has fire power, but her main battery is the admiral and staff," says her skipper, Captain Harold G. Bowen, Jr., USN.

Vice Admiral Harold T. Deutermann, USN, is the boss of this main battery. He is Commander Second Fleet and is Commander Striking Force, Atlantic. Wearing one hat, VADM Deutermann could direct operations of the Second Fleet and defend the western Atlantic. Wearing his hat as Commander of the Striking Force, he could carry an attack any place where needed.

Northampton is an elusive target. She can move from place to place, scooting all over the oceans, and still be in command of her forces. She'd be hard to find and harder to hit. And in case of an atomic attack, she's equipped to decontaminate quickly and still carry out her mission.

Northampton and her "main battery" can go any place in a hurry, fully ready at all times.

Until you get to know her, *Northampton* may not be the most beautiful ship afloat—in fact, she



SEE I SEE—*USS Northampton's* combat information center brings in data.

stay over only a few days and then head east for Finland. However, owing to ice conditions, this part of the cruise was called off, and the crew had a full week in Stockholm.

IT WAS A BUSY WEEK, TOO. Here's a quick run-down on just a few of the many varied activities of that stop-over:

Some 12,000 Swedish visitors made the tour of the ship. The tour route took them past hobbycraft displays, around the gleaming, very clean galley and mess decks, down and around through unclassified spaces, passageways, compartments—and out on the weather decks.

Marines and Navymen brought their own guests aboard, too. Members of ship's company, taking picture-in-a-minute shots of guests, were able to present them to the visitor right on the spot.

There were official calls, and unofficial calls. Most of all, there was individual visiting ashore. Some of the visits were of a professional nature, as, for example, the calls of the Surgeon General of the Swedish navy and the return calls and visits



GOLDEN TOUCH—Northampton men take in the wonders of the Gold Room in the world-famous Town Hall in Stockholm, Sweden. Walls are of mosaic tile.

to hospitals of the ship's medical and dental officers. Then, too, the eminent Bishop of Stockholm came aboard and in turn had members of the wardroom visit him.

Many of ship's company toured Sweden's plants and factories. A great many of the crew were invited

to visit the homes of the residents, with return invitations to the ship.

Tours of the city were popular. One scheduled tour took men to see Stockholm's ancient church where famous figures of Swedish history are buried; it took them to see the world-famous Town Hall with its amazing mosaic walls; the castle and the guard, and the "old town" section where, in one building, you could see a canonball imbedded in a wall—the result of a siege by the Danes.

Members of a Swedish cultural organization came aboard and put on a show in the mess hall and in the wardroom. They wore traditional costumes and danced the Swedish folk dances. Their musical group played old and new Swedish tunes. Ship's company were taught Swedish folk dances—and did well. There were Swedish song-games and there was general conversation on the customs and traditions of both countries.

THE OPERA was well attended by men in uniform; the churches more so. Libraries and museums were visited. Ship's company made the most of the visit and saw and did as much as they could to learn about Sweden. Quite a few Navymen made an effort to learn words and phrases in Swedish, and found themselves enjoying their stay even more, as a result.

Swedish armed forces personnel were especially interested in the big Navy tactical command ship, and there were a great many interchanges of visits with Swedish ships and stations by all hands. It was a full, busy week. The Marines and



may look a bit peculiar. Up in the bow is the tall "pig stick" mast, as it is named by ship's company. On the main deck are "beer cans" containing communication gear. Northampton has more antennas than a porcupine has quills. One, at least, is found on no other ship in the Navy—it's a lozenge-shaped affair high atop the main mast.

If you think of Northampton as what she represents, however, you'll see her as a mobile command center. Her communication power is fabulous. Her defensive and

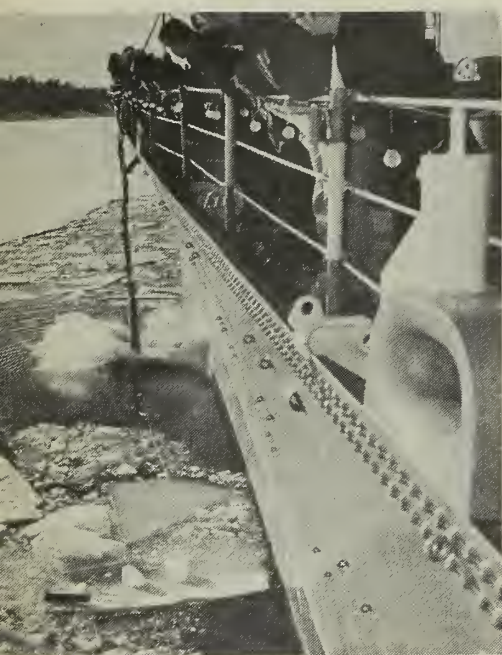
offensive capability now and for many years to come is just about unbelievable to any person who thinks in terms of WWII or Korea.

She rolls at sea with a movement no other ship has. Even alongside the pier, Northampton has a movement all her own. But she feeds good, and when there's liberty, there are boats. She visits some interesting places, too.

One thing you can be sure of: With her highly trained crew backing up her main battery, she's an ace in the hole in an emergency.



SEA AND SHORE—Black gang member mans boiler controls. RT: Hot dog American-style is enjoyed in Stockholm.



whitehats of *uss Northampton* made an excellent impression, according to Swedish press, radio and TV reports.

WHEN IT CAME TIME to leave, *HMS Oden* led *Northampton* into cleared water. Down to the Baltic and west through the Sound, past a Danish castle and Danish cities, exchanging honors with men of war and answering dip for dip the salutes of merchantmen. Down the English Channel, around the south of England, to Portsmouth.

Portsmouth, England, is a Navy town, all the way. As *Northampton* sailed in, Royal Navy shore stations and ships rendered honors. Honor guards were paraded on shore. Royal Navy band units struck up their music, to be returned by the band aboard ship.

The final salute was a sight to see. *Northampton* was being warped into a pier, starboard side to. Ahead of

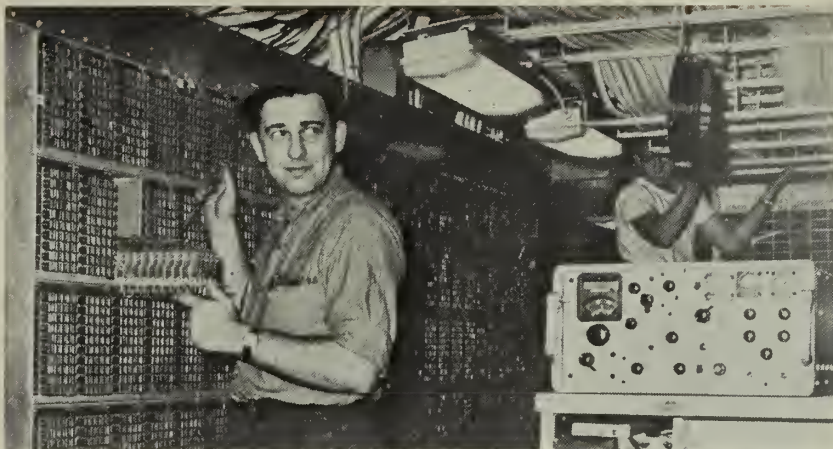
her was the aircraft carrier *HMS Victorious*. As the fore and aft line of *Northampton* approached the fore and aft line of *Victorious*, the Royal Navy carrier sounded a bugle call and honors were once again rendered and returned.

Portsmouth, England—It was almost like being back in your home port. *Northampton* came in one afternoon and out the next, but, there was still time for visiting and tours. Then home—to Norfolk, Virginia.

This was an interesting cruise. The ship worked—but that's not part of this story. One of its major missions was to make a goodwill cruise. You can give it any name you wish—but it was a real people-to-people visit. One thing's for sure: all hands enjoyed this cruise and the people of the ports they visited enjoyed having them as guests.

HOOK IS DROPPED at Vaxholm, sea freezes and people walk up to greet ship. Rt: Swedish Police visit *Northampton*.





MILES OF WIRING in *Northampton's* communication gear keeps ET gang busy.

Around the World in Two Seconds

Among the many "firsts" that "Number One"—uss *Northampton* (CLC 1)—can claim is a drill that the communications division put on. This was a drill to make you sit up and take notice, whether you are a communications type or not.

While at sea, steaming to the north of the Arctic Circle, and off the northwest coast of Norway, it was decided to see just what could be done with a regular watch.

The watch on duty got the word around to several communications shore stations around the world. "Stand by for a relay," they said.

In less than half an hour, a communications net was set up. Naval communications stations taking part were: Naval Communication Station, San Juan; Naval Communication Station, Washington, D.C.; Naval Communication Station, Pearl Harbor; Naval Communication Station, Guam; Naval Communication Facility, Japan; Naval Communication Facility, Philippines; Naval Communication Unit, Asmara; Naval Communication Facility, Port Lyau-ty, and Naval Communication Facility, Londonderry.

COMSECONDFLEET released a message. It was sent to the east and it was sent to the west. These two messages were received back aboard uss *Northampton* in lightning speed—literally—the signal traveled around the world in less than two seconds. And ungarbled, too.

It seems that *Northampton* can keep in touch with any place, at any time. We can't let any secret cats out of the security bag, but these radiomen of staff and ship can really turn to. As a specific example, they

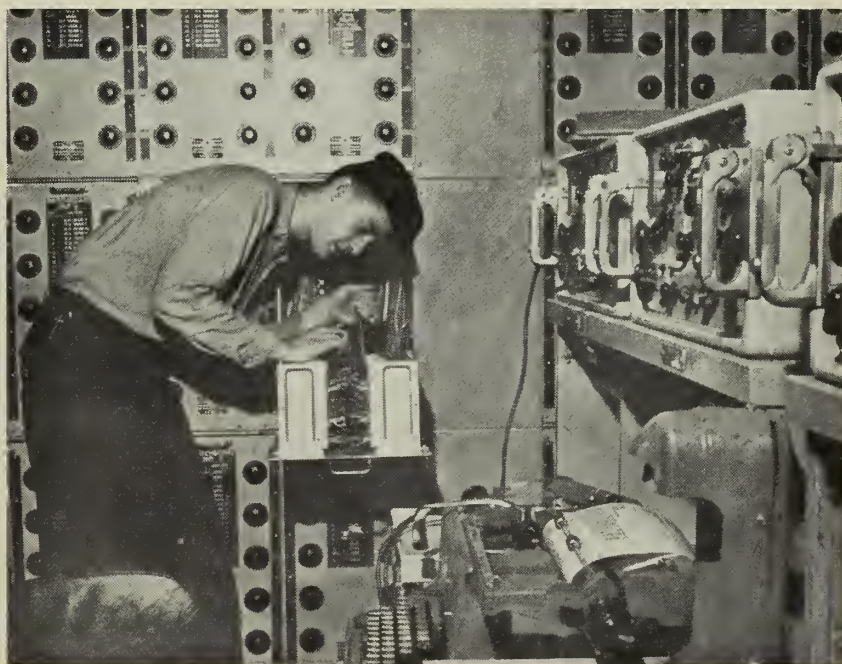
can guard umpty-ump channels at the same time. They can send dippity-dip messages to the same amount of ships and stations—all at once.

That isn't all. COMSECONDFLEET can not only get the word around to his command, he can get the word from them. Also, he can be fed a constant stream of information of various types, pulled in by the men who handle the complex electronic gear of this fabulous ship.

Through this communication set-up, *Northampton* can direct a task force at sea, an amphibious attack, covering aircraft and what-have-you. It takes teamwork and knowledge—and equipment. *Northampton* has them all. This drill proved it.



ANTENNA-STUDED USS *Northampton* can 'talk' around world. Below: Transmitter panel receives check.





her recent goodwill and training cruise to Europe, seemed to have a shipful of men who knew how to get the most out of a liberty ashore.

Northamptonmen did a lot of walking—perhaps the best way to see a place. A sightseeing tour is fine, especially if time is limited. A group can even take a taxi to the main spots, and split the tab. And, a guided tour offered by residents of a foreign place is also good. *Northamptonmen* did all these. But—they walked too.

As the *Navymen* came ashore at each port, they had the opportunity—which they took—of talking with people. It's people who make a place, not the reverse.

"Where do you live in the States?" This seemed to be the number one question *Navymen* from "Number One" would be asked. Their answers, of course, gave them the chance to discuss their home towns and states (and, more often than not, the residents had a relative that lived not

LIBERTY CALL

WHEN YOUR SHIP STANDS out of harbor, headed for foreign ports, what do you do to plan your visit so you'll see the most and enjoy the most?

Camera and film? A little spare cash? A run down to ship's library to brush up on the history and customs of the place you'll visit? A bit

of research for street maps and locations of famous places? A quick course by book or phonograph records so as to learn words and phrases of the language of the country you visit? A check with those who have been there and can give you the scoop?

USS Northampton (CLC 1), on

too far away.) A friendly start.

But it wasn't all talk of geography and climate. Customs and hobbies seemed to be main sources of conversational interest, too. Take eating, for example. The hot dog enthusiast found that he could get hot dogs in Scandinavia, but they'd most often be wrapped in waxed paper with

FOR THE RECORD—*Navymen* on liberty use plenty of film. Here, photo is snapped at Stockholm's Lake Malaren.





LOOK WHAT I GOT—Cruisermen compare purchases made on liberty. *Rt:* Swedish carvings catch eye of Navymen.

mustard on them—no roll. The sandwiches that Navymen ate in Oslo and Stockholm were served on plates, with no top layer of bread. You ate them with knife and fork. If you followed the custom of the Europeans, you used your fork with the left hand, too.

Eating? There were plenty of fine restaurants. The Malmaison, in Glasgow, a famous eatery in the Central Hotel; the restaurant in the Grand Hotel at Oslo; and, in Stockholm, wherever you went you were able

to have a meal that seemed as though the chef were working just for you.

Navy coffee is traditionally good, but the ship's crew found the Swedish coffee to be something special. And their pastry—it's a real specialty. The beer was good, too. And the surroundings were pleasant. There's a little place near the castle that is right out of a movie script. You go down a few flights, into a bricked area, and you're in the fifteenth century, ready to sit at a

long table, plan your schemes, break out your sword, and go adventuring.

Another place of "atmosphere" is the glass-enclosed "7 Sekel" that looks out on a park—pastry and coffee is the specialty. And "55," a fine restaurant that has been visited by artists and men of letters, and makes you feel like a king—they treat you so well, including a 10-course inexpensive dinner.

After eating, what next? Buy something for dear wife? Scotch tweed and sweaters. A Norwegian

SIGHT-SEEING—Northampton sailors tour Town Hall in Stockholm. *Rt:* Navymen traveling afoot chart their course.





GOOD EATING—Navymen buy hot dogs from Swedish sidewalk vender and (rt.) enjoy eating Scandinavian dinner.



ski hat. Some Swedish cut glass or articles made of Swedish steel. Carvings, wooden objects. The sailors went to town on their shopping, buying everything from wooden dolls to hi-fi sets. You could wander about the ship and marvel at what was bought. Not junk, but good items right down the line.

So, mindful of the budget, *Northampton* men budgeted their time as well as money. Many went skiing, some for the first time—no casualties. Owing to the weather, there wasn't much in the way of sports on this cruise. They did play basketball. They did learn to play ice hockey and to ice skate. Some even played tennis, it was said, in an inside court. But no swimming, baseball or other outdoor sports—too cold.

So, back to the main endeavor—sightseeing. Alone, or in groups, the

MORE FUN—Swedes hold dance for *Northampton* men. Below: In Oslo sailors see Frogner Park and try out skiing.





NEW FRIENDS—Swedish visitors board ship. *Rt*: Northampton crew member makes friends with local youngster.

Navy men went every place and saw everything. Their cameras were clicking like mad. You could get a good idea of what a place was like just by going over the pictures that were taken.

There are in existence, it would be safe to guess, pictures of Navy men standing in front of about every monument, famous building, or natural spot of beauty in every port of the world. And rightfully so. Years from now, those pictures will mean a lot. Meanwhile, some of them are going into the ship's cruise books, and various publications.

Did the Marines and Navy men of *Northampton* plan their liberties? Evidently they did. One thing's for certain—they enjoyed themselves. They made the most out of their time ashore. What's more, they left behind a very fine impression of the American people and the U. S. Navy.



MUSIC MEN—Com2ndFlt Band (*above*) readies for dignitaries at Greenock, Scotland. *Lower Rt*: Inspecting Viking ship.





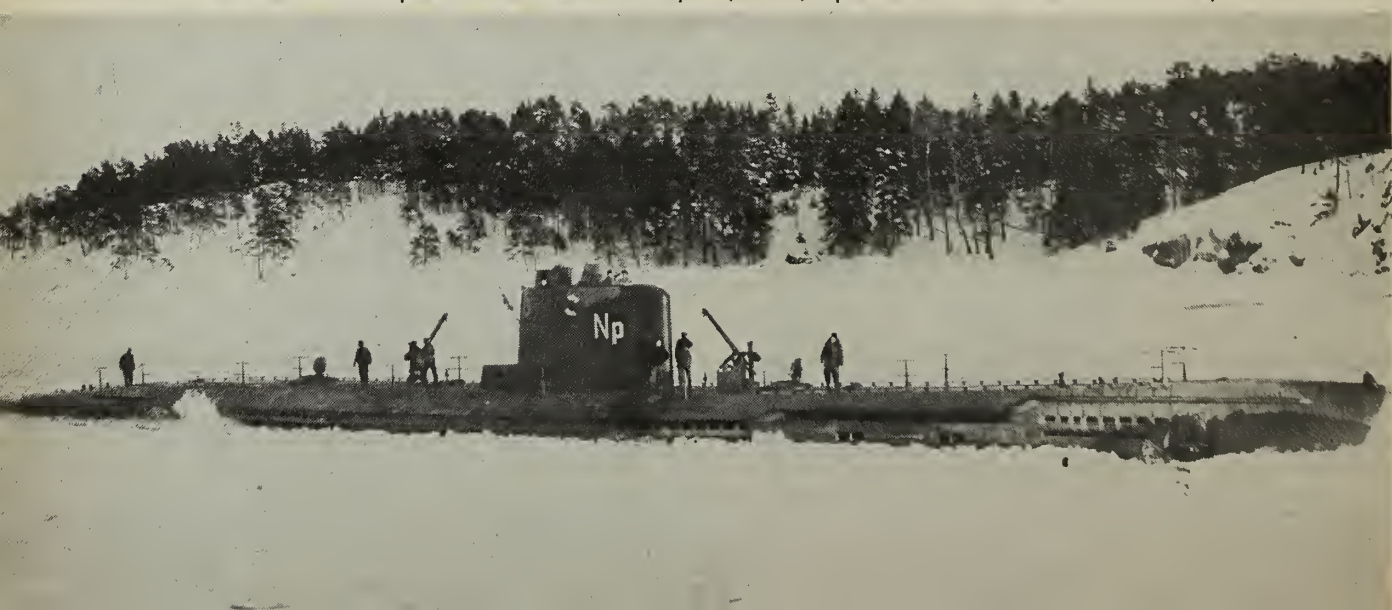
DESTROYER *HMS Halland* patrols sea.

MEE

IF YOU WENT ABOARD a ship of the Royal Swedish Navy for a visit, you'd see that there wasn't much difference between one of their ships and one of yours. The routine would be about the same; the watches would be like the ones you stand. Even the honors and ceremonies and the traditions would be familiar to you.

"Customs of the sea are international," LT Sven Carlsson, RSwN, told one visiting U.S. Navyman. LT Carlsson, who has been a PT boat skipper, pointed out that there are many more similarities than there are differences. "We pipe and salute and hoist our ensign and flags the way you do. If you see slight differ-

FAST MOVING motor torpedo boats like *HMS Plejad* (T 102) operate with DDs. Below: *HMS Neptun* battles ice.





READINESS and training are important in Swedish navy. Here, enlisted man receives radar training at Berga.

THE SWEDISH NAVY

ences, you'll note that our customs and routines are very close to those of the British Navy," he said. (Swedish ships, by the way, are labelled "HMS"—this can stand for "His Majesty's Ship" or "Hans Majestäts Skepp.")

In a Swedish ship you'll find coffee served out for the morning watch; mustering of the anchor watch; a cleaning and polishing bill—all quite familiar. One routine, both afloat and ashore, is different: There's a 15-minute break each morning to see uniforms—a sort of daily rope yarn, in line with the traditional U.S. Navy rope yarn on Wednesday afternoon, giving you time to get your personal gear squared away.

Every man and woman in Sweden must do a hitch in national defense. As a result, the navy has a great many "national service" men doing at least 13 months of service. As a Regular, a man serves one to three years on his first hitch. When a Regular has finished his first tour, he may then take training for PO1, CPO, warrant or commission. (It takes three years to reach PO2 and eight years to go from boot to CPO.)

Staff officers, such as engineers, come from colleges. Regular line officers come from the Swedish Naval Academy.

Retirement from the Swedish navy comes at different ages, depending upon rank. The lowest retirement age is 50 and the highest 65. Duty rotation is the same as in any navy.

JUNE 1960

TRAINING AND DRILLING are very important to any navy, and the Swedes are as serious about readiness and training as is the U.S. Navy.

There are two major naval bases for training. Karlskrona is the main training base and has schools of many different types. Then, at Berga, there is a base that handles both officer and enlisted personnel, training around 2000 students at a time.

On Swedish ships and stations, drills go at the double and are very spirited. The training schedule is a daily affair. If you've seen Swedish ships and admired their seamanship and smartness, you'll realize why.

Swedes are not only natural seamen, they work at it.

In your visit to a Swedish naval unit, you'd see another similarity to ships you've served in—they're very clean. Everything about them is shipshape, and they seem to be ready for inspection at any time.

Sweden is a maritime nation. "The sea is our destiny," they say. This is natural, owing to the long coastline and the many thousands of islands.

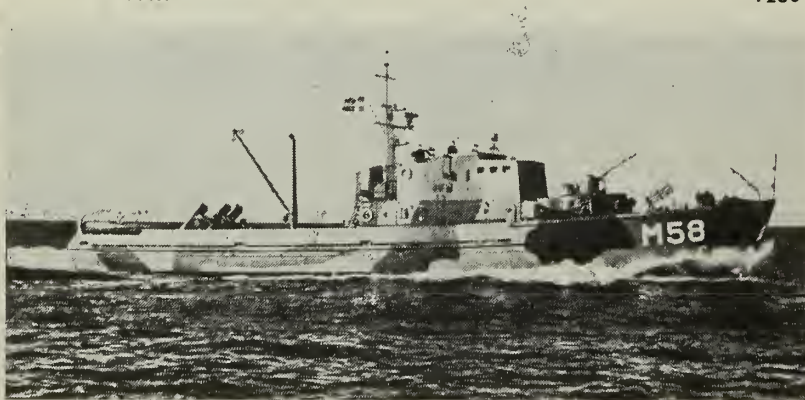
The Swedish navy is well balanced. It is not a large navy by our standards: Some 150 ships of all types, manned by about 11,500 men, including the Coast Artillery. About

SWEDISH NAVYMEN fight 'shipboard' fire during damage control training.



Daily Routine Aboard a Swedish Navy Ship

At sea	In port
—	Relieve the harbor watch
0400	Relieve the watch. Free watch turns in
0415	Serve out coffee for the morning watch
0600	Call idlers. Up hammocks. Washing and dressing
0645	Reveille; Call all hands, up hammocks, washing and dressing
—	Breakfast for all hands
0715	Breakfast for the free watch
0750	Relieve the watch
0750	Breakfast for the free watch
0810	Away from breakfast
0815	Cleaning and brass-polishing
0815	Sick Call
0915	The crew sees to it that the uniform of the day looks tidy
0930	Drill starts (Divisions)
1130	Retreat from drill
—	Dinner for all hands
1130	Dinner for the free watch
1215	Relieve the watch. Dinner for the free watch
1300	Away from dinner. Sweep down
1330	Drill starts. (Divisions)
1600	Retreat from drill. Sweep down
1630	Relieve the watch
—	Supper for all hands
1730	Supper for the free watch
1815	Relieve the watch. Supper for the free watch
1900	Away from supper
—	Muster the anchor watch
—	Set anchor watch
2000	Relieve the watch
—	Hammocks for all hands
2000	Hammocks for the free watch. The free watch turns in
2030	Sweep down. Make clear for inspection of the lower decks
2100	Tattoo. Inspection of the lower decks
2230	Silence
2400	Relieve the watch. The free watch turns in
Day with evening drills	
Drill starts	1930
Retreat from drill	2045
Set anchor watch	2100
Hammocks for all hands. Free watch turns in	2100
Tattoo. Inspection of the lower decks	2115
Day with liberty	
Retreat from drill	1600
Sunday	
Reveille. Call all hands	0700
Breakfast for all hands	0730
Cleaning and brass-polishing	0815
Divisions (Church)	0930
Dinner	1230



AT SEA—HMS Sparo (M 58), a coastal minesweeper, cruises Swedish waters.

500 officers and 2000 warrant and petty officers. Half the navy is composed of Regulars; the other half of those doing their national service hitches.

THE SWEDISH NAVY has a number of ships under construction to add to its fleet. It is a "balanced light fleet," with emphasis on ships up to destroyer size. Speed and balance are needed for their tasks, the Swedish navy believes.

According to one official publication, the Swedish navy has three cruisers, 24 submarines, eight destroyers, 19 destroyer escorts and frigates, 12 large torpedo boats, 25 small torpedo boats, two minelayers and 42 minesweepers. Patrol, supply and training ships make up the remainder of their operating fleet.

The famous Swedish torpedo boats operate with destroyers, and add to the punch of a flotilla. They're not like an ordinary PT type, however, since they carry a crew of 33, and have a displacement of 170 tons. They are peculiarly well adapted to Swedish waters, and, with a speed in the range of 40 knots, 40mm guns and torpedoes, they carry quite a sting.

The *Holland*-class destroyers carry guided missiles for surface-to-surface action, rocket depth-charge launchers and automatic guns. Their depth-charge launchers are set up to permit free angle of fire and loading under all weather conditions.

Recently integrated into the fleet are helicopter units, which work right along with the ships and provide an additional means of communication with widely separated bases and islands. The main use of helicopters is that of antisubmarine spotting duties, with surface craft assigned to carry out the actual attack. Helicopters are also very valuable in minesweeping operations.

Swedish icebreakers are well designed, with two screws forward and two aft. They are capable of turning on a dime, and of plowing through ice even in a severe winter, in the areas in which they operate.

As the visiting Navyman can plainly see, Swedish ships are beautifully designed. They not only look good, but they are also uniquely designed for their assigned tasks.

The Swedish navy comes under the Commander-in-Chief, Naval



OFF DUTY—Swedish sailors relax in barracks at Berga. *Right:* Cruiserman makes model of his ship in hobby shop.

Forces. Under him are four Naval Commands: North, East, South and West. And, there is the Flag Officer Home Fleet. Under Home Fleet are the bulk of the fighting ships, allowing for quick formation of task units of any type needed.

The four Commands, in time of peace, usually have only a few ships attached, mainly for patrol duties. However, the training of minesweeper crews is usually under the West Command. In an emergency, the Commanders of the four Commands would mobilize and take operational control of all ships and units in their sectors.

There is great flexibility in the Swedish naval command system. Each Command has subdivisions of: floating forces; Coast Artillery units; helicopter units; bases and training establishments; coast watching service; and dockyards and supply.

The Royal Swedish Coast Artillery is part of the naval warfare power, but also controls fixed defenses. A Coastal Defense Commander, for example, controls gun batteries, minefields and minelayers, and usually works under the commander of one of the four Commands.

Besides defense, the Royal Swedish Navy handles sea rescue in the western Baltic. With helicopters and ships on a standby basis each day, the Swedish navy has been responsible for saving many lives and many ships that were put in danger by storms, strandings or collisions in the Baltic.

YOU'LL FIND THAT teamwork plays a large part in the Swedish naval forces. A helicopter will team up with a surface ship to make a rescue. A helicopter will team up with minesweepers as they go about their business. An icebreaker will lead ships into frozen-over harbors. Joint maneuvers between the services always have the key word: Teamwork.

It's a modern, ever-growing country with a skilled industry. Their ships reflect it; their defense system reflects it. Much of their defensive power is protected by underground facilities—even the ships have underground pens. Heavy ice wouldn't stop one of their icebreakers, nor would it stop any of the submarines, which would just set out from an underground pen and steam along underneath the thick ice.

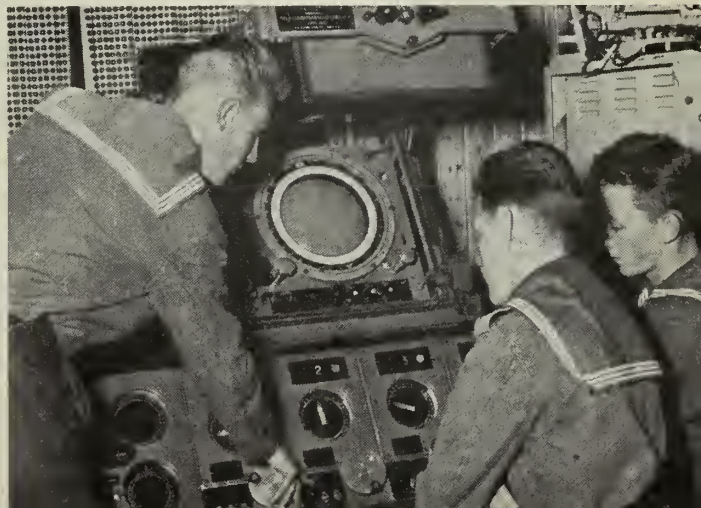
"Operation Granite," is the name given by the Swedes to their underground harbors. From here they can launch hit-and-run attacks in any weather at any time. Their "Bases in Granite" are camouflaged, and heavily guarded. Some have workshops, stores—and can even do dry-dock work.

The Swedes are a tough and realistic people. Their naval forces reflect their national character. Their ships are based in hard, bed-rock granite—their sailors seem to be, too.

This is an effective fighting force. Their policy, as they'll tell you, is not isolation. It's a policy of non-alignment. Since 1946, Sweden has been a member of the UN. As such, she believes she has international obligations. However, Sweden will not enter into alliances. Instead, she will depend on her tradition of 150 years of peace and her reputation in the world for wanting peace.

Sweden desires peace. If there be powers that wish to destroy that peace, they'll have to reckon with the Swedish armed forces, and—her navy. That navy is something to be reckoned with—man and ship, they'll stack up with the best.

SHIPSHAPE—Navymen keep physically fit with gymnastics at Karlskrona. *Right:* Radar students get latest word.



Helping Hands: Report on

The tragedy of the Agadir earthquake is an incident of history now, but the memory of it and the job that had to be done is still vivid in the minds of those who witnessed it. There were U. S. Navy people close by, and they turned to. In fact, the Navy lent a helping hand from near and afar.

The portions of the following story that appear in italics are quoted from a firsthand report that was submitted by Wave LT Jean Chapman, USN, who is assigned to the staff of the Commander, U. S. Naval Activities, Port Lyautey, Morocco.

THE U. S. NAVY proved its readiness to respond in an emergency when it provided round-the-clock assistance to the survivors of the earthquake-devastated city of Agadir, Morocco, where more than 5000 persons were killed and 10,000 injured.

As soon as news of the disaster was received, Navy ships and planes

were dispatched to the resort city. R5D Skymasters from Fleet Tactical Squadron 24 based at NAS Port Lyautey—loaded with medical supplies, food and personnel—constituted the first relief wave to arrive in the Agadir area.

A scene of utter ruin greeted them—both from the aerial view of the flattened city, and the woeful situation on the ground. Within 45 minutes other VR-24 planes were winging their way from Naples with tons of blankets, beds and sterile water.

Personnel from U. S. Naval Activities at Port Lyautey set up emergency headquarters at the French Air Force Base in Agadir. U. S. Navy communications technicians used ham radio equipment to establish a link between the stricken city and the outside world. Navy doctors and hospital corpsmen established a dispensary and collection point for the victims in a nearby hangar.

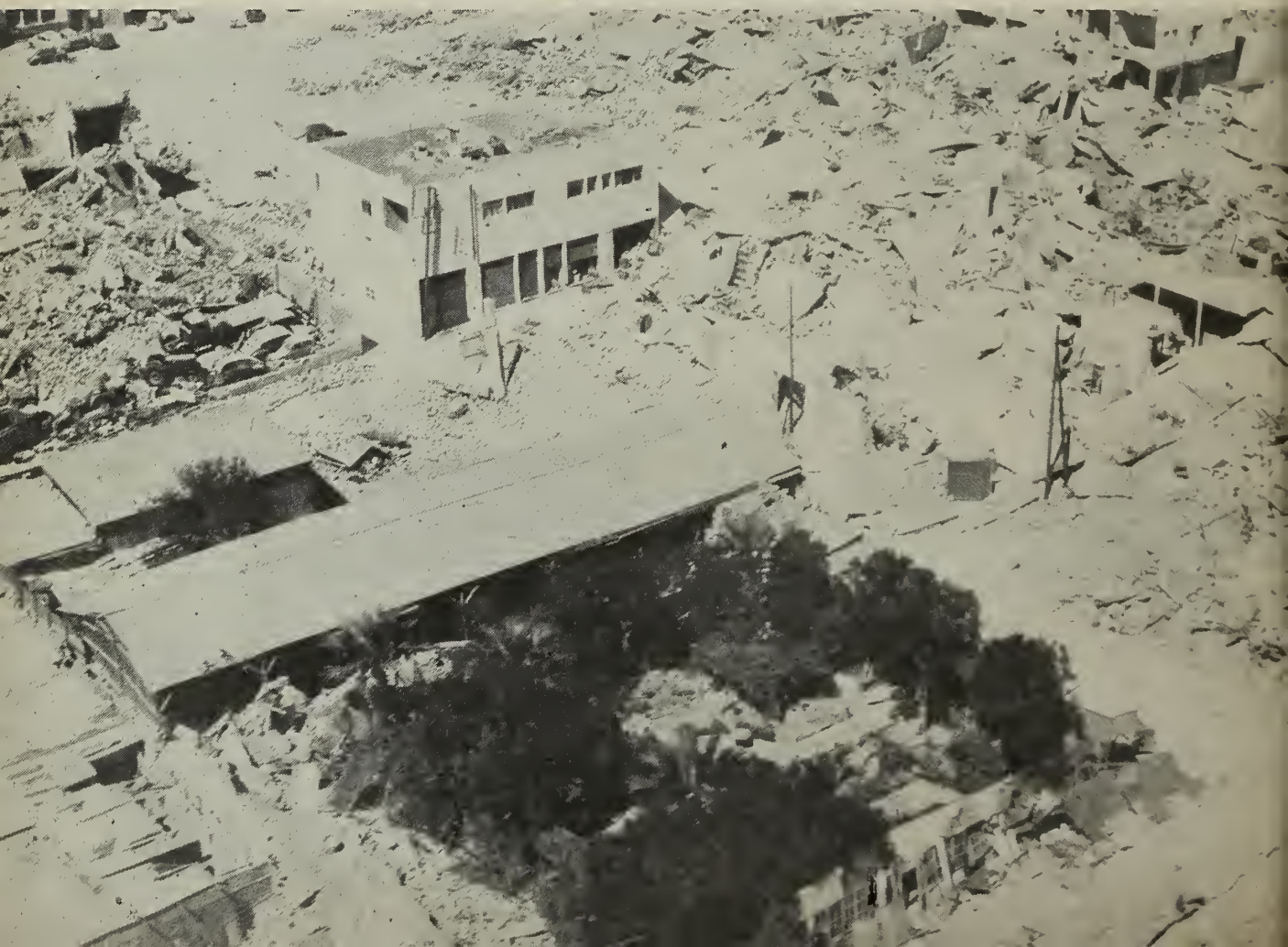
Surprisingly enough, there was very little panic or hysteria . . . one doctor attributed it to a sort of mass traumatic shock. There was a stunned quality about the patients—they hadn't fully realized yet what exactly had happened. One woman saw her husband and six children buried alive in the rubble.

Nearly the entire population of Agadir is Moslem—the rest are French settlers and tourists, since the city was a popular winter resort.

The first 36 hours were hell-on-wheels! We shoveled plane-load after plane-load of personnel, equipment, medical supplies, food, water and other necessities out of our terminal here (NAS Port Lyautey) for Agadir. Soon the terminal was putting out flights at the rate of Idlewild. All remaining personnel were put on messenger, yeoman, driver and 'round-the-clock relief watches.

As soon as the emergency supplies were unloaded at Agadir, the planes

THIS IS WHAT Navy men saw from the air as they flew in to answer the call for help from quake-shattered town.



Agadir

were off again, evacuating many of the injured refugees. During the first day of rescue operations, described as "one of the longest days in the history of VR-24," six VR-24 planes made 37 cargo and evacuation flights. They flew in over 175,000 pounds of emergency supplies and evacuated more than 1000 injured survivors.

The evacuation of wounded people, orphans and survivors (in that order) was going on continuously. No one looked at his watch—everyone worked almost continuously. One doctor told me that he was there 48 hours and couldn't remember even stopping for coffee or a head break. When he got in the plane to return to Port Lyautey, he found a secluded seat in the back of the plane and, out of nerves and fatigue, cried for more than a half-hour.

The heavy cruiser *uss Newport News* (CA 148)—the first U.S. Navy ship to reach the scene—was steaming about 75 miles northeast of Sicily when she received emergency orders from COMSIXTHFLT. The 21,000-ton cruiser reached Agadir in 40½ hours after racing 1255 miles at an average speed of 31 knots.

Newport News provided blankets, tents, mattresses, ponchos and 250,000 gallons of fresh water daily. Her crew joined other U. S. Navymen, Marines, soldiers and airmen, as well as English, French, Dutch, Spanish and German forces that teamed up with the Moroccans to help dig out the survivors and bury the dead.

The Seabees and the Marines were there. Here's an example of their spirit. They had been working 18 hours with little or no rest and the officer in charge called for an hour's break. After only five minutes, one man in the group stood up, shouldered his shovel and started back to the next pile of debris. One by one, all of the other men followed him and went back to work without so much as a word from the OIC. Wonderful spirit and endurance!

After the first two days, we had a bulldozer, two flatbed trucks and other engineering equipment in operation. Of course the working parties were rotated and all-in-all, about



ANGELS FOR AGADIR—Naval Air Reservists all over the U.S. pitched in to collect and deliver needed goods. Here, group from Marietta, Ga., loads up.



NATIVE COUPLE search ruins left by quake for what is left of their belongings while service personnel help dig through ruins in search of missing persons.





WEEK-END WARRIORS from NAS Oakland, Calif., unload supplies at Port Lyautey. Below: Reservists of Columbia, S.C., load donations from their state.

200 U. S. Navymen and Marines participated in the mission in Agadir. (This of course, does not take into consideration the tremendous support activity that was in continuous operation back at Port Lyautey.)

The medical teams were also rotated as much as possible, but because of the increasing load on our small hospital (only 50 beds) fewer reliefs were available. As a result

many of the doctors and medical personnel were there for 48 hours or more without being relieved. About 1500 seriously hurt patients were evacuated by air within the first 36 hours after the quake.

Here's an interesting incident concerning one of our doctors: A Moroccan reported that a little house had collapsed on a whole family and that he could hear a baby crying. Upon

investigation, from the top of the house, a faint wail was heard. The Navy doctor was summoned and was lowered head first into the debris. (Two burly Marines held him by his feet.) He found the child trapped in a cave that was formed by the bodies of three dead adults. Hanging by his feet for 10 minutes, he performed what was the equivalent of a "breech delivery" of the baby and managed to get her out alive.

While rescue and clean-up operations were underway, ADM H. P. Smith, usn, Commander in Chief, U.S. Naval Forces, Europe, radioed an appeal for food and clothing for the thousands of homeless, including many orphans left in the wake of the earthquake and tidal wave.

This appeal was relayed from Washington to various Navy commands throughout the U. S. RADM Allen Smith, Jr., usn, Chief of Naval Air Reserve Training, coined the phrase "Angels for Agadir" and volunteered the use of Reserve planes and personnel to deliver the initial contributions, as Naval Reserve Squadron 871 from NAS Oakland was scheduled to make a routine training flight to Port Lyautey.

Almost immediately clothing and supplies began arriving at Oakland. Meanwhile, from Denver, St. Paul, New Orleans, Topeka, Atlanta, Seattle, Miami, Boston, Dallas, Chicago and numerous other cities, reports were pouring into the Navy Department of clothing, food and money collections.

This prompt and overwhelming response was almost more than the Navy had bargained for. Collections had to be halted since contributions had surpassed the Navy's capability of airlifting on routine training flights.

About 14 tons of clothing and two and one-half tons of food were flown to Morocco by six Navy transport planes—including three from VR 871. The remaining supplies will be sent to Morocco by ship as soon as they are collected from the various cities that responded to ADM Smith's plea.

The initial shipment arriving in Morocco included two tons of high concentrated multi-purpose food filled with nutritious vitamins and minerals. Specially developed for mass relief feedings, this food was donated by the "Meals for Millions Foundation of Los Angeles," a non-profit charitable organization.

NAVY RECON PLANE over Agadir photographs crumbled walls of a hotel.





ROYAL THANKS—Princess Lalla Aisha thanks CDR G. J. Klicka, CO of VR-871, for supplies. Rt: Typical Agadir scene.

The Oakland Reservists were met upon their arrival at Port Lyautey by Princess Lalla Malika, President of the Moroccan Red Cross and daughter of King Mohammed V. In acknowledging receipt of the relief cargo, the Princess said, "You have brought what we needed most, clothing and food for the babies. We need more, but above all, we need milk and food for the children."

The Navy's Angels for Agadir delivered their cargo directly to the earthquake-stricken city after a brief stopover at Port Lyautey. The food and clothing were loaded onto wait-

ing Moroccan army trucks for delivery to the nearby tent cities that were established to shelter the refugees.

The Reservists were given authorization to enter the "ville morte" or dead city as the Moroccans call the disaster area. There was no sign of life except for the workers still clearing debris. Working with everything from giant bulldozers to sledgehammers, the Moroccan army troops were still removing bodies from the wreckage.

Outside of Agadir, the Reservists found the "living city," three huge

tent villages that shelter about 10,000 people. These cities were erected virtually overnight from tents and other material flown in by the U.S. Navy. These tent cities include about everything found in a normal city, including a grammar school.

Our part in the rescue and support operations was a great one; and one that the Navy and the American public can well be proud of.

It was a lesson to us here for readiness, for organization, in courage, international cooperation, and understanding between peoples.

FIRST NAVY SHIP to arrive at disaster area was USS Newport News (CA 148). She brought supplies and hands.



A Look at the Record

WHEN IT COMES to individual athletic achievement, Navymen are way up there.

And there are certified figures on record in BuPers—plus more than 435 trophies scattered throughout the Fleet—to prove it.

These trophies are Athletic Achievement Awards presented by the Chief of Naval Personnel to individual Navymen who score a hole-in-one; bowl a 300 game or a 700 series; pitch a no-hit, no-run baseball game; or chuck a perfect, no-hit, no-run, no-man-reach-first softball game.

This awards program has been in effect now for five years plus a couple of months. And in that time, an almost unbelievable total of 436 trophies have been presented to Navymen and women for their outstanding athletic accomplishments.

Perhaps the most unbelievable (if you'll pardon the expression), number of awards have gone to Navy golfers who have scored a hole-in-one. Although the odds against scoring an ace vary anywhere from 10,000- to 35,000-to-one, Navymen drop the ball in the cup—with only one shot—on the average of once every six days. Navy golfers have maintained this pace now for the past 2185 days.

During an annual civilian hole-in-one tournament conducted over a 20-year period, 15,750 persons who had previously made a hole-

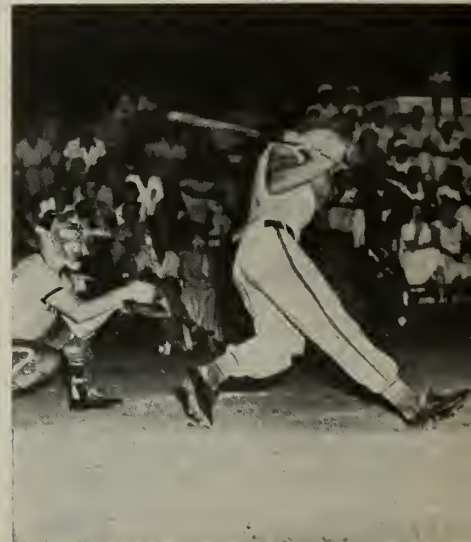
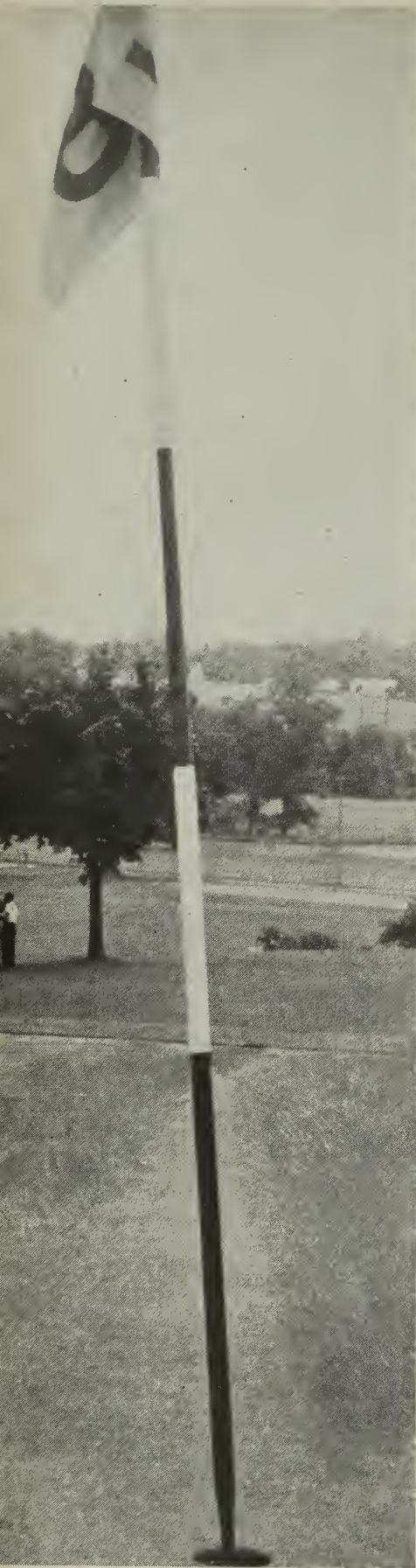
in-one, scored only nine aces out of 78,750 tries (five drives each). Therefore, at this rate, the odds against making a hole-in-one under ideal conditions in tournament play are 8750-to-1.

From 1 Oct 1954 when the awards program was inaugurated—until 1 Jan 1960, a total of 318 trophies were presented to active-duty Navy personnel for making holes-in-one. Of these, two trophies have gone to Wave golfers. Two Navy wives also received hole-in-one trophies. In 1959 alone, 68 hole-in-one trophies went to Navy aces.

To date, 15 Navymen have done it twice—with a companion hole-in-one trophy now on their mantlepiece. (See accompanying box.) No Navymen or woman, has as yet been lucky enough to receive three hole-in-one awards. However, Pershing J. Vezinat, HMC, USN, has scored three aces, but received only one trophy, as two of his aces were made before the awards program was established.

If the extremely high number of awards is any indication, it is quite evident that Navy golfers are blessed not only with skill but with an unusual amount of luck. Although there may be some heated discussions on this, luck is important in scoring a hole-in-one. Most of the top pro golfers admit it would be practically impossible to make

GETTING BALL into cup brought golf award to CAPT E. J. Pawka, left. Getting ball past hitters helped bring awards for softball and baseball.



by Sailor Sportsmen

a hole-in-one without a certain amount of good fortune.

The Navy record books indicate that the factor of repeated skill and control is the clincher in bowling a "300" or pitching a perfect game. A check of the records reveals that only seven trophies have been presented to Navymen for bowling 300 games; seven for no-hit, no-run baseball games; 48 for perfect softball games; and 54 to bowlers who rolled a three-game series of 700 or better.

To receive a BuPers Athletic Achievement Award, the individual deserving recognition must make application for the award himself. This is accomplished by submitting a request, via your CO, to the Chief of Naval Personnel. (See page 00 for details and requirements for each award).

Some of the requests received in BuPers are strictly formal and use official jargon throughout, others are conversational and give first-hand accounts of the individual's accomplishments, and some are - well, take the request of Hal L. Harrison, AO1, USN, for example. His letter, in part, read:

"1. This is to inform the Bureau of Naval Personnel that I, Hal L. Harrison did, after five years of playing golf, achieve the ultimate of all duffers by making a hole-in-one.

"2. This miraculous act took place on the second hole of the 18-hole

course located at the U.S. Naval Base, Guantanamo Bay, Cuba. The particulars of the deed are as follows:

a. The second hole is an elevated green, 129 yards tee-to-cup, par 3.

b. There was a foursome on the green consisting of CWO Nagy, Mr. Griffith, Chief Hutton and Jacquay, MU1. They waved myself, G. E. Wilson, ATC, USN; L. C. Padgett, ADC, USN, to go ahead and play through.

c. There was a slight breeze in my face, so I selected a number seven iron and drove. I thought my drive was short, and that everybody on the green was crazy from the way they carried on. When I found out the cause of their antics, I proceeded to outdo them and show them that I was not affected by this rare occurrence. I remained calm and collected, only because I blacked out.

d. Upon questioning the foursome on the green, they said the ball hit on the edge of the green and ran hot and true to the cup. It was a day like all days, filled with those events that alter and illuminate our lives, and I was there."

And then there was the carefully-worded letter from CDR Harry J. Watters, USN, a member of the joint staff of the Atomic Energy Commission. His 41-word letter simply certified that after being a duffer for 12 years, he scored an ace on the 138-yard, 26th hole of the Army

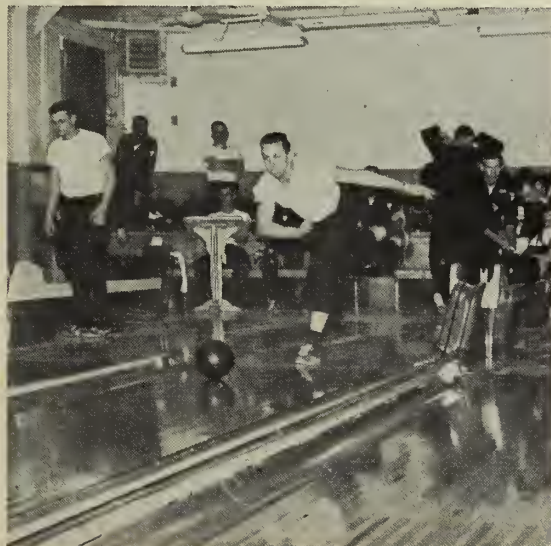
BASEBALL and softball awards are strictly for pitchers. In bowling and golf, any Navyman who plays either game has a theoretical chance to win.



PERFECT softball game or no-hit, no-run baseball game could add trophy above to your collection of souvenirs.



HOLE-IN-ONE trophy, above, is held by several hundred golfers. Winners of bowling prize, below, are rarer.



Navy Country Club at Arlington, Va. His letter was modest and to the point. But, its first endorsement—by the Director of Military Applications, AEC, an Army general, no less—was something else. It read:

"The circumstances surrounding the alleged incident described in the basic communication have not been investigated by the undersigned.

"It is noted that the enclosure (CDR Watters' certified, attested score card), if accepted at its face value without regard for item 26 does support the alleged designation of the individual during the preceeding 12 years.

"Considering the evidence as presented, and in view of the applicant's reputation for truthfulness and veracity, it is recommended that the applicant be honored without resort to FBI or similar investigation."

CDR Watters got his trophy as recommended—without any investigation—but with a good deal of comment from his friends.

Speaking of comments, here's a

hole-in-one that should give you something to talk about. It was a 402-yard ace registered by Robert F. Loomer, MU3, usn, of NavSta Pearl Harbor. He claims that he made it on the par four, 9th hole of the Moanalua Golf Club—Hawaii's oldest golf course—while playing with R. F. Dalton, MU2, usn. After that one, a certain breed of sportsmen who are famous for their stories about the big ones being caught or getting away, will definitely have to step aside for Navy Golfers.

Loomer's 402 is believed to be one of the longest holes-in-one ever recorded. No records were available in BuPers as to the longest ace registered. One of the longest drives on record without benefit of hills or wind is 430 yards. It was made by an American, Craig Wood, back in 1933 while playing at St. Andrews, Scotland.

The Navy's previous distance record for a hole-in-one was a 335-yard ace scored by Billy E. Golden, HM2, usn, in 1956 at the Eagle



Haven Golf Course, Little Creek, Va.

While Loomer goes down on record for having scored the Navy's longest hole-in-one, the record for the Navy's shortest is still an 80-yarder made in 1956 by LCDR John F. Hanlon, usn. Eighty yards or 402, the shortest is still a hole-in-one, and counts no more nor less than the longest.

The only Wave golfers who are

BASEBALL

(No hit, no run)

Brettell, James A., HM2, USN, (NavHospital, Guantanamo Bay, Cuba)
Johnsen, Carl William, HN, USN, (NavHospital, Guantanamo Bay, Cuba)
Smith, James R., RD3, USN, (NavSta, Pearl Harbor)
Van Schoeyck, Kent L., PN3, USN, (NAS Agana, Guam)

BOWLING

(For 300 game or 700 series)

Atherton, B. B., MU1, USN, (NAS Memphis) 707
Barger, Thomas C., AQ1, USN, (NAS Oceana, Va.) 766
Bast, Robert O., MA3, USN, (PAMI, PacFlt) 728
Benbow, John M., DC1, USN, (USS AFDM-5) 704
Bush, Robert M., GMC, USN, (FTG, Subic Bay, P. I.) 708
Butts, Elbert E., DMC, USN, (NAS Alameda) 722-739-708
Cuthbert, Charles E., PN3, USNR, (NAS Oakland) 739
Czarnecky, Stephen, ME1, USN, (USS Koiner, DER-331) 706-706
Dalton, S. J., ETC, USN, (FTC, Charleston) 704-704
Ensley, Lawrence F., AD2, USN, (VP-40) 761
Godawski, Eugene S., DT1, USN, (NavSta, San Juan, P. R.) 701
Gonyea, Warren H., YN1, USN, (COMCARIB-SEAFRON) 708
Greco, George R., DC2, USN, (USS AFDM-5) 726
Habeck, Arlon R., SK1, USN, (NAS Glenview, Ill.) 720-717-716
Harvell, Baxter, TRM3, USN, (NavSta, Sangley Point, P. I.) 700

Huetskamp, Kenneth J., BM3, USN, (NavSta, San Juan) 725

Israel, Robert W., AM2, USNR, (NAS Atlanta) 702

Johnson, Harold F., AD1, USN, (NAATC, Memphis) 726

Larsen, J. H., LT., USN, (COMPHIBPAC) 703

Luci, Luigi, HM2, USN, (NavSta, Subic Bay) 702

Marshall, K. K., AD2, USN, (VP-47) 705

Martin, Jack G., LT., USN, (NAS Key West, Fla.) 710

McElhaney, Charles B., ACC, USN, (NAS Alameda) 707

McEvers, Phillip E., YN1, USN, (VP-22) "300"

Modglin, Albert Monroe, ADRAN, USN, (NAS Patuxent River, Md.) 746

Nicoletta, Lewis F., HM1, USN, (NavHospital, Guantanamo Bay) 710

Olin, Russell, AD2, USNR, (NAS Seattle) 701

O'Sullivan, Thomas J., ACTAN, USN, (NAS Oakland) 726

Piddock, William K., YN2, USN, (Recruiting Station, Detroit) "300"

Preston, Peter A., AOC, USN, (VA-16) 721

Scherger, Ernest R., CT2, USN, (NavComm-Fac, Navy #830) 700

Sommervold, Daren M., PN2, USN, (Nav-Supply Depot, Guam) 716

Stowell, Edward J., LCDR, USN, (Charleston Group, LANTRESFLT) 711

Tate, Laurence B., RMSN, USN, (NavComm-Sta, Guam) 703

Taylor, Thearon W., FTC, USN, (FTG, San Diego) 768-727

Trusso, Frank, SHC, USN, (NavSta, San Diego) 704

Wray, James Edward, HM1, USN, (USMC Air Facility, New River, Jacksonville, N. C.) 704-714

GOLF

(Hole-in-one)

Abercrombie, T. J., CAPT, USN, (COMNAVFORLANT) 155 yards

Allport, Charles E., SK2, USN, (AEC, Pittsburgh) 230 yards

Barbor, Gerald L., LT., DC, USN, (Nav-Dental Clinic, Guantanamo Bay, Cuba) 174 yards

Barnes, Maurice D., GS1, USN, (USS Macon CA-132) 128 yards

Barnett, Ray, ADC, USN, (NATTC Jacksonville) 185 yards

Barthels, Kenneth H., YNC, USNR, (NavRes-TraCen, Decatur, Ill.) 140 yards

Bartin, Victor J., AD2, USN, (FASRON Nine) 182 yards

Berg, A. C., CAPT, USN, (CIC School, NAS Glynco) 135 yards

Bieri, B. H. Jr., CAPT, USN, (NavShipYd, Long Beach) 130 yards

Bisenius, Mary E. A., LCDR, MSC, USN, (NavHospital, Jacksonville) 138 yards

Boyd, Rudolph C., LTJG, USN, (NAS Pensacola) 240 yards

Boyle, Jesse E., BMC, USN, (NavSta, Subic Bay) 170 yards

Brazel, James D., CN, USN, (MCB-11) 180 yards

Brown, Laurence A., CWO-4, USN, (LANTRESFLT, Green Cove Springs, Fla.) 222 yards

Campbell, Douglas E., ADC, USN, (FASRON 117) 177 yards

Carrington, William T., LTJG, USN, (Nav-SecGru, Ft. Meade, Md.) 200 yards

Dawson, James L., JOC, USN, (NTC Great Lakes) 160 yards

Demmler, Charles F., LCDR, USN, (PG School, Monterey) 185 yards

Dempster, P. J., LCDR, USN, (NAS Memphis) 190 yards



on record for receiving hole-in-one trophies are Estelle E. St. Clair, PN2, USN, and LCDR Mary E. A. Bisenius, MSC, USN.

St. Clair scored her ace on the par three, 135-yard, 14th hole at the NAS Memphis Golf Course while playing a practice round in the 1957 All-Navy Golf Tournament. She said that "it was a low six iron into the wind and was hit slightly to the right of the pin. The ball dropped

in front of the green, took one bounce, rolled up to the pin and dropped in the cup. I ended the nine holes with a 39. My average for nine holes is usually around 43."

LCDR Bisenius who is assigned to the Naval Hospital at Jacksonville, Fla., made her hole-in-one on the par three, 138-yard, 16th hole at the Ponce de Leon Golf Course, St. Augustine, Fla., on 7 Oct 1959.

In golf you always hear of a few really freak shots. Take the ace scored by CAPT A. C. Berg, USN, CO of the CIC School at Glynco, Georgia. He made his hole-in-one on the fly—that is, no bounces from tee to cup—on the 135-yard, fifth green of Georgia's famed Sea Island Golf Club on 15 Aug 1959.

According to Eddie Thompson, the course pro, the odds against making a hole-in-one on the fly are about 35,000 to one. A ball that drops into the cup on the fly almost always bounces out, Thompson says.

If you think that CAPT Berg was lucky, then take the one by Eldon

R. Martyn, MA3, USN, of PAMI CONUS, NTC Bainbridge, Md. His ace rates space in Ripley's Believe-It-or-Not column. Using a number four wood, Martyn scored his 200 yard hole-in-one on the number three hole at the NTC Bainbridge Course. But, what makes his feat unusual, is that he made it with a borrowed ball—after he lost his last one—and with the assistance of an "Out of Bounds" sign. Here's how he describes the event:

"I teed off on the number three, par three, 200-yard hole with my number four wood. The ball—which I had just borrowed from my partner, Daniel A. Calandriello, MA3, USN, after losing my last ball—hooked sharply and was heading off the fairway when it hit an "out of bounds" sign and bounced back toward the green. I could not see exactly where the ball went as the green was higher than the tee. When I finally found my ball in the cup, I thought it was one that had been left there by some other player. But, upon examining

Dukovich, Frank A., ETC, USN, (USS Orion AS-181) 150 yards

Edgar, Leroy J., CSC, USN, (INAS Pensacola) 156 yards

Evans, Nicholas A., CDR, USN, (COMNAVAIR-PAC) 145 yards

Fagerberg, Donald E., RM1, USN, (SubBase, Pearl Harbor) 136 yards

Farber, Karl H., LT., USN, (PG School, Monterey) 185 yards

Freytag, James E., AE1, USN, (GMU 7, Pt. Mugu) 142 yards

Fryer, Robert W., SN, USN, (LANTRESFLT, Green Cove Springs, Fla.) 216 yards

Hanley, M. J., CDR, USN, (COMNAVAIRLANT) 125 yards

Harrell, R. B., CDR, USN, (COMSERVPAC) 175 yards

Heckman, R. N., AKC, USN, (VP-7) 140 yards

Hill, F. J., CDR, USN, (NavHospital, Bethesda) 180 yards

Hinnant, Worth M., HM1, USN, (Camp Lejeune, N. C.) 188 yards

Hirstein, Robert V., LT, USN, (PG School, Monterey) 185 yards

Hurley, John F., AT1, USN, (NAS Memphis) 132 yards

Hutchinson, Ogar, Jr., RM2, USNR, (Naval Reserve Training Center, Charleston, South Carolina) 215 yards

Irby, Irvine D. Jr., LTJG, USN, (AEWRON Threl) 165 yards

Ireland, J. M., CDR, USN, (OPNAV) 145 yards

Karns, Charles E., CWO-4, USN, (FLTAR-HAWAII) 177 yards

Kline, R. P., CAPT, USN, (COMNAVAIR-FORLANT) 162 yards

Larsen, Herman Colle, LCDR, USN, (BuPers) 150 yards

Leschak, Andrew E., AE1, USN, (NAAS Whiting Field) 206 yards

Loomer, Robert F., MU3, USN, (NavSta, Pearl Harbor) 402 yards

Martyn, Eldon Rees, MA3, USN, (PAMI CONUS, NTC Bainbridge) 200 yards

McDermott, Frederick, LCDR, USN, (COMPHIB-LANT) 159 yards

McElroy, J. H., CAPT, USN, (COMNAVAIRLANT) 159 yards

McNabb, Charley, AC2, USN, (NAS Moffett Field) 140 yards

Mix, Robert W., LT, CEC, USN, (PG School, Monterey) 205 yards

Morgan, W. M., LCDR, USN, (Ret.), 210 yards

Palumbo, Anthony J., AKC, USN, (NAS Barber's Point) 136 yards

Patton, G. J., LCDR, SC, USN, (COMNAVPHIL) 162 yards

Pawka, Edward J., CAPT, USN, (CO, VFP 61) 140 yards

Phelps, C. A., ENS, USNR, (HATU, Pacific) 140 yards

Pitney, Lionell Lloyd, YN1, USN, (VU-10) 159 yards

Quillman, Thomas E., Jr., CDR, USNR, (NTC Great Lakes) 230 yards

Readferne, Barry, LTJG, USNR, (NAAS, Whiting Field) 180 yards

Rice, James O., LT, USN, (PG School, Monterey) 195 yards

Saxton, Willis C., AMC, USN, (VF-211) 195 yards

Sellers, Merl F., LTJG, USNR, (VP Fivel) 155 yards

Shupper, B. H., CAPT, USN, (BuPers) 162 yards

Smith, T. P. Jr., CDR, USN, (EXOS, NavDept.) 155 yards

Stanch, H. E. J., LT, USN, (NAS Memphis) 160 yards

Stanovich, John J., AE1, USN, (VF-211) 120 yards

Stone, Lowell T., CAPT, USN, (COMSUBPAC ADMIN, M.I.)

Stuart, David P., AA, USN, (NAS Memphis) 132 yards

Traver, A. H., MMC, USN, (NavCommissary Store, Pearl Harbor) 175 yards

Triska, Bill B., DCC, USN, (NavSta, Guam) 180 yards

Wasko, Meldon D., AEC, USN, (AEWMATRON Twol) 188 yards

Wollar, E. S., LCDR, USN, (USS Norfolk DL-11) 180 yards

SOFTBALL

(No-hit, no-run, no-man-reach-first)

Cole, Thomas E., AMC, USN, (FASRON 12)—two awards

Dill, Forrest E., SN, USN, (COMSERVLANT)

Douglas, Jackie H., DT1, USN, (HTG, Ellyson Field, Pensacola)

Gullekson, Gary L., RM2, USN, (COMMINLANT)

Koon, Lawrence Dennis, HM3, USN, (Nav-Hospital, Portsmouth, Va.)

Kopp, Gilbert C., PN1, USN, (NavBase, Norfolk, Va.)

Lynch, Richard D., YN3, USN, (COMSERVPAC)

McConnell, Gerald F., JO1, USN, (Staff, ALL HANDS Magazine)

Naab, Robert C., ENS, USN, (VP-16)

Ortega, T. D., SH2, USN, (DESFLT FOUR)

Parker, Ronald J., MAC, USN, (PAMI, PacFit)

Ratley, Robert J., CS2, USN, (COMSERVLANT)—two awards

Rohrbach, Frank, EN1, USN, (USS Groyback SSG-574)

Siebrath, Eugene G., BT2, USN, (San Diego Group, PACRESFLT)

Valenzuela, Edward T., AO1, USN, (NAF, Oppama, Japan)

Here's How to Qualify for Athletic Achievement Awards

The regulations and eligibility requirements for the individual Athletic Achievement Awards presented by the Chief of Naval Personnel are published periodically in the *Special Services Newsletter*. Since that publication has limited distribution, and the guidelines governing eligibility for Achievement Awards are changed from time to time, here's an up-to-date summary of them:

- **Eligibility**—All naval officers and enlisted personnel, except NROTC and USNA midshipmen, on active duty for 90 days or more are eligible. Their dependents are also eligible for these awards. (Marine Corps personnel and their dependents are not eligible for BuPers Athletic Achievement Awards.)

Appropriately engraved trophies will be presented to Navymen for individual accomplishments in baseball, bowling, golf and softball as follows:

- **Baseball**—For pitching a no-hit, no-run game during league play. Requests should be forwarded to the Chief of Naval Personnel via your commanding officer. An authenticated copy of the score sheet should accompany each request.

- **Bowling**—For rolling a "300"-game or a 700 series (scratch) in 10 pins during scheduled league play. For Waves: a 300-game or a three-game series of 600 (scratch). Forward your request and copy of your score sheet, properly attested by your team mates or opponents and an official

of the bowling alley, to the Bureau of Naval Personnel via your commanding officer.

- **Golf**—For making a "hole-in-one" on a golf course that has no more than five par three holes out of the 18 holes, or a hole-in-one over 200 yards on a pitch-and-putt course. Requests should be forwarded to the Bureau, via your CO, along with the score card properly attested by your playing partners and the course professional.

- **Softball**—For pitching a no-hit, no-run, no-man-reach-base game during a regularly scheduled game or in league play. Requests should be forwarded to the Chief of Naval Personnel via your commanding officer with an authenticated copy of the score sheet.

it, discovered it was the one I had just borrowed."

And then there are a few hole-in-ones who suffer the misfortune of making an ace without anyone's seeing it. That's what happened to Kenneth H. Barthels, YNC, usn, of the Naval Reserve Training Center at Decatur, Ill. He scored his first hole-in-one—after trying for 26 years—while playing alone.

Barthels holed out with just one shot on the third hole of the Scovill Golf Course at Decatur, on 22 Oct 1959. He immediately attempted to attract the attention of other players who were playing nearby, but was

unable to do so. That was just too much, so he retrieved his ball, wrapped it in his handkerchief and returned to the club house.

"Naturally I'm tickled to death," Barthels said, "but the irony of it all is the fact that no one was playing with me."

So far as trophies go, bowlers are way down the line, with 61 trophies to their credit. Of these, only seven have been awarded for 300 games and the remaining 54 were for three-game series of 700 or more. Nineteen awards have been cornered by eight Navymen. To date, three Navymen have won three BuPers

Bowling trophies apiece, while five others have received two each.

Arlon R. Habeck, SK1, usn, of NAS Glenview, won a trophy each month for the first three months of 1958 with a 720, 716 and 717. And then, Elbert E. Butts, DMC, usn, of NAS Alameda, went on a rampage and received three trophies from BuPers in four months' time when he rolled a 722, 739 and 708. The only other three-time winner was Joseph Nagy, YN2, usn, who rolled a 701, 711 and 729 in 1956.

In 1958, 23 bowling trophies were presented to Navymen who rolled three-game series of 700 or better, and nine more were issued in 1959. Achievement Awards also went to two Navymen in 1959 for bowling 300 games. They were: William K. Piddock, YN2, usn, who is assigned to the Navy Recruiting Station, Detroit; and Phillip E. McEvers, YN1, usn, of VP-22.

Thearon W. Taylor, FTC, usn, of FTG, San Diego, has two BuPers Bowling Awards to his credit and is also listed in the Navy record books for posting the highest three-game series. In May 1958, he rolled a 255, 246 and 267 for a 768.

Although Chief Taylor is an outstanding kegger, his wife Doris is quite a champ herself. Just a week or two before Taylor rolled his 768 series, she came through with a 279 game.

The second highest series on rec-

Navymen Who Have Won Two or More Awards

BOWLING

Butts, Elbert E., DMC, USN, three awards—722, 739, 708

Czarnecky, Stephen, ME1, USN—706, 706

Dalton, S. J., ETC, USN—704, 704

Gonyea, Warren H., YN1, USN, a 300 game and a 708 series

Habeck, Arlon R., SK1, USN, three awards—720, 717, 716

Hatcher, B. E., CTSN, USN—a 300 game and a 718 series

Nagy, Joseph, YN2, USN, three awards—701, 711, 729

Wray, James E., HM1, USN—714, 704

GOLF

Ahl, B. N., CAPT, MC, USN

Barker, John L. O., GMC, USN.

Cranney, W. D., LT, MC, USN.

Ford, J. L., HMC, USN.

Gill, Alfred M., CDR, USN.

Keimig, John J., DKC, USN.

Leschak, Andrew E., AE1, USN.

Moore, W. W. Jr., CDR, USN.

Morgan, W. M., LCDR, USN.

Picard, Curley P., ME1, USN.

Sharrow, Robert J., BMC, USN

Wallace, Robert Q., LCDR, USN.

Watkins, R. J., CDR, USN.

Whitt, Malmum E., CDR, MSC, USN.

Wright, Lambert A., ADC, USN

SOFTBALL

Ball, Dave, SDC, USN.

Cole, Thomas E., AMC, USN.

Green, I. C., BM2, USN. (three awards)

Kopp, Gilbert C., PN1, USN.

Ortega, T. D., SH2, USN.

Pich, Leo, AD1, USN.

Ratley, Robert J., CS2, USN.

Trostel, R. G., YNSN, USN.

ord is a 761 by Larry F. Ensley AD2, USN, of VP-40, who rolled a 258, a 223 and a 280.

Another Navy bowler worthy of recognition is Steve Czamecky, SF1, USN, who is serving aboard the radar picket escort vessel *uss Koiner* (DER 331). He has rolled two 706 series. The first was in June 1958 and the second in September 1959.

While Navy Bowlers were getting their share of strikes, so were Navy softball pitchers.

Since 1954, Navymen have pitched 48 perfect softball games. There were eight pitched in 1958 and nine in 1959. Last year, Robert J. Ratley, CS2, USN, (COMSERVLANT) and Thomas E. Cole, AMC, USN, (FASRON 12) each pitched two perfect games. Only five other Navy softball pitchers have hurled two perfect games, and one—Irv Green, BM2, USN—has three to his credit.

Dave Ball, SDC, USN, still holds the record for the highest number of strikeouts in a single game among the 48 perfect performances to date. He struck out 20 of a possible 21 batters back in 1956 while pitching for VR-1 at NAS Patuxent. Irv Green, BM2, USN, is next with 19 strikeouts. In the past two years, 18 is the highest number of strikeouts registered in any one game. Chief Cole and Gilbert C. Kopp, PN1, USN, each fanned 18 men per game.

The lowest number of awards presented have been for pitching no-hit, no-run baseball games. Only nine trophies have been issued so far—three in 1956, one in 1957, two in 1958 and one in 1959. This is probably because fewer baseball games are played than softball.

The last man to receive a baseball trophy was Carl W. Johnsen, HN, USN, who pitched a no-hit, no-run game for the Naval Hospital at Guantanamo Bay, Cuba, on 12 Aug 1959, in the final game of the base-wide championship playoffs.

In 1958, Kent Lyle Van Schoeyk, PN3, USN, pitched a no-hit, no-run game for the NAS Guam "Flyers" against the NavCommSta "Blue Devils" in Guam's All-Island Baseball League. James A. Brettell, HM2, USN, also turned the trick in '58 with, as he puts it—"the outstanding support of my teammates, and perhaps a little luck."

On page 22 is a list of the Navymen who have recently been awarded Athletic Achievement Awards.

—H. George Baker, JOC, USN

SIDELINE STRATEGY

WHEN THE WORKING DAY ends, some Navymen go for restful, relaxing pastimes, such as listening to music, playing cards, watching TV or reading. Others take on more vigorous activities, such as boxing or basketball, soccer or handball. Still others are absorbed by painting and drawing, ceramics, woodworking, leathercraft, or just tinkering with cars.

And there are a certain few who are different from all the others. Take Chief Yeoman C.

Such off-duty activities are not new to Gravett. While stationed in Hawaii from 1951 to 1953, he did much to promote rodeos and today the 50th state is one of the top rodeo states in the Union.

His wife recently rode in a national horse show and was named Champion Cowgirl of the year and his 12-year-old daughter was undefeated in horse-riding shows on the West Coast last year.

Often these pastimes develop into full-time jobs when



W. Norton, USN, for example. He trains dogs.

He is second vice president and an instructor of the Obedience Training Club and president of the German Shepherd Dog Club of Memphis, which he helped organize. He teaches dogs to understand commands and instructs their masters on how to give them.

Then, there's a Navyman's daughter at NAS Guam who spends her spare time defying gravity as she spins around the island on a one-wheel contraption. Guam's "well-balanced" teenager is Jo Anne Moore and her gravity-defying specialty is unicycling—what else?

Out in WESTPAC there's the Japan Rodeo Association made up of U.S. servicemen as well as Japanese enthusiasts interested in introducing a bit of the Old West to the Orient.

This group was organized through the efforts of Jack Gravett, BM2, USN—one of the nation's top rodeo performers—who is stationed in Yokosuka, Japan.

a man retires. As an example, take M. S. "Doc" Slaughter who boxed as an amateur and professional for 15 years and then throughout his Navy career spent the majority of his off-duty hours coaching boxing, football and track. "Doc"—now retired from the Navy—is still active in Navy sports. He's Recreation and Athletic Director at the Navy's Postgraduate School, Monterey, Calif.

★ ★ ★

Although no Navyman participated in the Winter Olympic Games at Squaw Valley, Calif., the Seabees and Marines both deserve a "Well Done" for their work in getting the site ready for the event.

And while handing out credit, don't neglect a salute for John P. Riley, hockey coach at the USMA, West Point, N. Y., and his undefeated U.S. Olympic Ice Hockey Team that earned the U.S. its first Gold Medal for Ice Hockey since the winter games began in 1924!

LETTERS TO THE EDITOR

Reverting to Permanent Rate

SIR: Seventeen months ago I accepted an appointment as Ensign (LDO deck). May I now resign my appointment, be reinstated to my permanent enlisted rate of BMC, and transfer to the Fleet Reserve?—ENS J. R., USN.

• You may transfer to the Fleet Reserve if you have at least 19 years' and six months' active duty (See Art. C-13407, "BuPers Manual"), but it is not necessary to resign your commission.

At present you have both a temporary commission and a permanent enlisted rate. You may therefore revert to your permanent enlisted status and transfer to the Fleet Reserve without actually resigning your commission.

The first step in this direction is to complete NavPers Form 630 (Application for Transfer to the Fleet Reserve), and forward it, with a letter stating the reasons for your request, to the Secretary of the Navy via chain of command (including the Chief of Naval Personnel).—ED.

Retainer Pay

SIR: I am a chief petty officer who is looking forward to transfer to the Fleet Reserve. I first enlisted in the

Nuclear Weapons Man's Billet

SIR: I am a nuclear weaponsman first class and a qualified submariner, at present on shore duty. I have heard that SSG and SSB(N) type submarines and Guided Missile Units have billets for qualified NWs.

What are my chances of being assigned back to the Submarine Force upon completion of my shore duty tour?—J. E. B., NW1 (SS), USN.

• All qualified Nymen on Shore are made available to the Submarine Representatives, EPDOLANT or EPDOPAC, upon completion of a normal tour of shore duty.

The allowance for NW in the submarine force at the present time, however, is small. Your assignment to duty in submarines will depend on the needs of the service at the Fleet distribution level at the time you become available for assignment.

In other words, if there is a billet open for your rating on a submarine when you are made available for sea duty, you've got as good a chance as anyone of getting it. If not, you'll probably go surface Navy.—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Navy on 15 Aug 1939 and have reenlisted on schedule every time except one. That time I shipped two months early.

Does this make me eligible for transfer to the Fleet Reserve on 5 Dec 1960 with 55 per cent of \$350? Also, as an E-8 would I have to serve until 15 Aug 1961 to be eligible for 55 per cent of \$380?

If I receive a medical discharge (10 per cent disability) rather than a straight transfer to the Fleet Reserve, would I have to complete each year day-for-day, or does six months count as a full year?

Are the benefits the same for someone who has been given a medical discharge after 20 years' service as they are for a Fleet Reservist?—W. M. T., ADC, USN.

• You are not entitled to 55 per cent of \$350 if you go into the Fleet Reserve now. You must serve until you have completed at least 21 years' and six months' service for transfer to become eligible for this amount.

The same thing is true if you make E-8. Fifty-five per cent will only come after you have served at least 21 years and six months.

Here is how you can figure your retainer pay:

First of all, take your base pay (E-7 with over 20 years' service is \$350), and multiply it by two and one-half per cent. This gives you \$8.75. Multiply this by the number of years of active duty (including constructive time). In your case, you apparently have over 20 and one-half years. Since six months or more counts as a full year for purposes of transfer to the Fleet Reserve, you multiply by 21 years. Your retainer pay, if you leave active service now, would be \$183.75. If you wait until you complete 21 years and six months, it would increase to \$192.50 a month.

Physical retirement is something different. If a person's disability is rated below 30 per cent on the basis of the Veterans Administration standard schedule of rating disability, he must complete 20 years' service day-for-day to be retired. If he has less than 20 years'

service day-for-day, he may be separated with severance pay.

If, on the other hand, disability is rated at over 30 per cent, he may be physically retired regardless of years of service. In computing this retirement pay, six months is counted as a full year for a percentage multiplier, but does not increase basic pay in which entitled at the time of disability retirement.

In your case, since you have apparently completed 20 years' service day-for-day, the benefits are the same as those for a Fleet Reservist.—ED.

More Steaming Records

SIR: In your January 1960 issue, *uss Outpost* (AGR 10) claimed a steaming record of 5207 underway hours for fiscal year 1959. Our sister ship in the Atlantic is to be commended, but her assumption that she has won the heavy-weight crown is somewhat premature. A challenger from the West, *uss Scanner* (AGR 5), has bested *Outpost's* steaming hours twice.

In 1957, *Scanner* steamed 5975 hours for an over-all underway percentage of 68.2. More recently, in 1959, this West Coast radar picket ship steamed 5652 hours or 64.5 per cent.

Limit on Constructive Service

SIR: The last time I reenlisted I shipped over eight months early so I could be eligible for the educational benefits afforded veterans of the Korean War. Can I count this eight months as constructive time toward time for transfer to Fleet Reserve?—L. E. M., AD1, USN.

• Definitely not! To receive credit for constructive service for the purpose of transfer to the Fleet Reserve, discharge must have been within three months of the end of the term for which enlisted. In your case, your service during your last enlistment would be computed on a day-for-day basis.

It is noted that you were discharged eight months before the normal expiration of enlistment for the purpose of immediate reenlistment in order to retain Veterans' Administration educational benefits. Reenlistment in accordance with BuPers Instruction 1133.4A even one day before the normal expiration of enlistment is sufficient to enable an individual to retain these benefits. Any more questions?—ED.

One of the first AGRs assigned to the West Coast picket line, *Scanner* was commissioned on 30 Jan 1956. Of the first crew of 173 officers and men, there remains only two plank owners; S. N. Sawyer, SMCA, USN, and J. E. Owens, BM3, USN.

The following comments are quoted from the inspecting officer at our annual Administrative Inspection:

"It is doubtful if there is any ship's crew in the Pacific Fleet which surpasses *Scanner* in appearance. No suggestions for improvement are made or needed."

We will be happy to have *uss Outpost* tip its hat to us.—LCDR B. A. Shaw, USN, CO, *uss Scanner*.

SIR: We of *uss Guardian* (AGR 1) would like to tip our hats to *uss Outpost* (AGR 10) for her claimed steaming record of 5207 underway hours during fiscal year 1959.

But, she may tip her hat to us for calendar year 1959. We think we have beaten her, and offer these statistics as proof:

During fiscal year, 1959, we were underway 4308.4 hours or 49.2 per cent of the time. During calendar year 1959, however, we were underway 64.6 per cent of the time and steamed 5661.5 hours.—A. Z. Smith, SF1, USN.

• Any more for the record?—ED.

Sailing Up the James River

SIR: I visited the submarine *uss Cobbler* (SS 344) recently, while she was tied up in the Hudson River. As an old submariner I enjoyed the visit immensely, and certainly don't want to cast any reflection on the fine history of that ship.

I must, however, dispute one claim which appears in *Cobbler's* history—the claim that in 1956 she became the first submarine to sail up the James River to Richmond, Va.



UP THE RIVER—Crew members of submarine *USS L4* pose for photograph after sailing their ship up the James River to Richmond, Va., back in 1920.

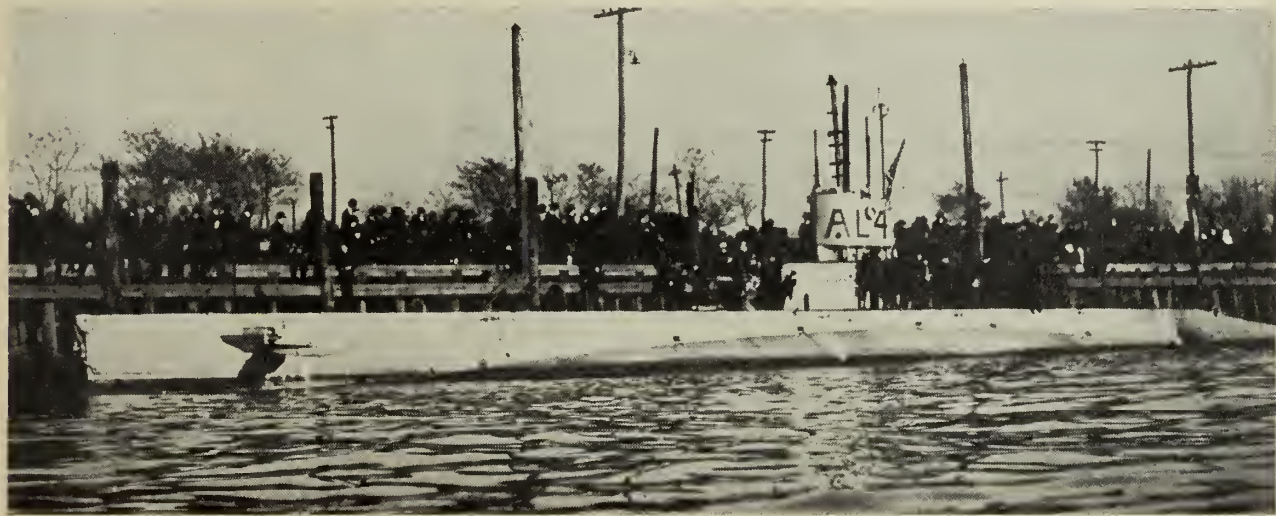
In 1920 I was a crew member of *uss L4* when we sailed up the James to Richmond, received the Governor on board, and submerged for dinner. Our skipper at that time was LT Ralph Davis, USN, who later, I believe, became Commandant of the U. S. Navy Base at Hampton Roads, Va.

Enclosed are a couple of pictures which were taken during that visit to Richmond. I think there may still be some around who would remember

those days.—S. H. Soule, ex-USN.

• Our thanks for treating us to an interesting slice of early Navy submaricana.

It should also serve as yet another reminder to those of us in the modern Navy who are prone to claim "firsts" and "onlys" at the drop of a hat—it's best to check out the facts pretty thoroughly before staking such claims. Otherwise, you're sure to be topped—sometimes by as much as 36 years.—ED.



WHO'S FIRST—Old timer *USS L4* is greeted by citizens of Richmond, Va., as she moors at pier 40 years ago.

Here's How You Get Your Service Number

SIR: I have been unable to find anyone who knows how serial (service) numbers are assigned to Navy enlisted men.

My service number is 531 99 80. I can't be the 5,319,980th man to enlist in the Navy. Besides that, in 1958 I read about a chief whose service number was 123 45 67. Obviously, I am not one of 4,085,413 men to join the Navy since that chief.—F.W.B., SN, USN.

• Service numbers do run consecutively, but not the way it might appear. Here's how service numbers were started and how they are still issued today.

In 1918, as a result of a study by the Bureau of Navigation (now Bureau of Naval Personnel), a service number system was adopted by the Navy Department. The idea was to assign each enlisted person a number by which he

could be identified. This number would never be duplicated or reassigned to any other enlisted individual in the naval service, but would forever be identified with the one person.

The first step taken was the alphabetical combination of all enlisted service records then held in the Bureau, and the assignment of a service number to each man. The numbers assigned were seven-digit ones and started with 100 00 01 and went consecutively, 100 00 02, 100 00 03, et cetera.

The next step was to issue service numbers to those men being enlisted in the future. To do this, blocks of service numbers were assigned by the Bureau to the various recruiting stations and district commandants. In turn, these major commands assigned them to subordinate commands as required.

There has been no major change in the system since the beginning. Today, blocks of numbers are still assigned to main recruiting stations and commandants when they request them. In cases where recruiting stations are deactivated, the unused numbers are recalled by the Bureau and reassigned to other stations. Occasionally commands find discrepancies, but usually these errors are picked up through the numerical file in the Bureau. This provides an excellent check against fraudulent enlistments.

When recruiting activities are deactivated, a low series of numbers may be returned to the Bureau. These are held until needed for reassignment. In some cases this may be several years later. Thus, a seaman recruit may have a lower service number than a chief who has many years of service.—ED.

Bataan's Record in Korea

SIR: In the past ALL HANDS has carried announcements of Navy Unit Commendations or Presidential Unit Citations awarded to ships for their fine records during the Korean conflict.

I believe it would be difficult to match the record of USS *Bataan* (CVL 29.) Take, for example, the time she spent in Korean waters from the start of the Korean conflict until the signing of the armistice. During this period, she won seven battle stars.

I know she arrived out there soon after the war started because I remember using some of her planes while I

was Tactical Air Commander during the Hungnam evacuation.

Later I joined the ship in San Diego for her second and third cruises to the Korean area. The dates of the first cruise are unknown to me, but I know she left CONUS for the second one on 27 Jan 1952 and returned to San Diego 26 Aug 1952. For the third, she departed again only two months later—on 28 Oct 1952—and finally returned to San Diego 27 May 1953.

A check of the dates of the first cruise should also show a lengthy stay in the Far East. Those three cruises, I feel, comprise a record comparable

to that of any other carrier (large or small) in the Pacific during that time.

I think that *Bataan* is a worthy candidate for the Navy Unit Commendation.—R. A., CAPT., USN.

• SecNav Inst. 1650.1A provides that: "Recommendations for unit awards shall be forwarded within three years from the date of the outstanding action via operational commanders, type commanders (when appropriate) and the Chief of Naval Operations . . ."

We checked the records, and we agree that *Bataan's* Korean service record is one to be proud of.

Recommissioned from the Reserve Fleet in Philadelphia in May 1950, *Bataan* went to San Diego later that summer, loaded Air Force cargo and personnel, and departed in November for Tokyo. She arrived in Korean waters in mid-December, and, until June 1951, her aircraft flew strikes in support of the ground forces.

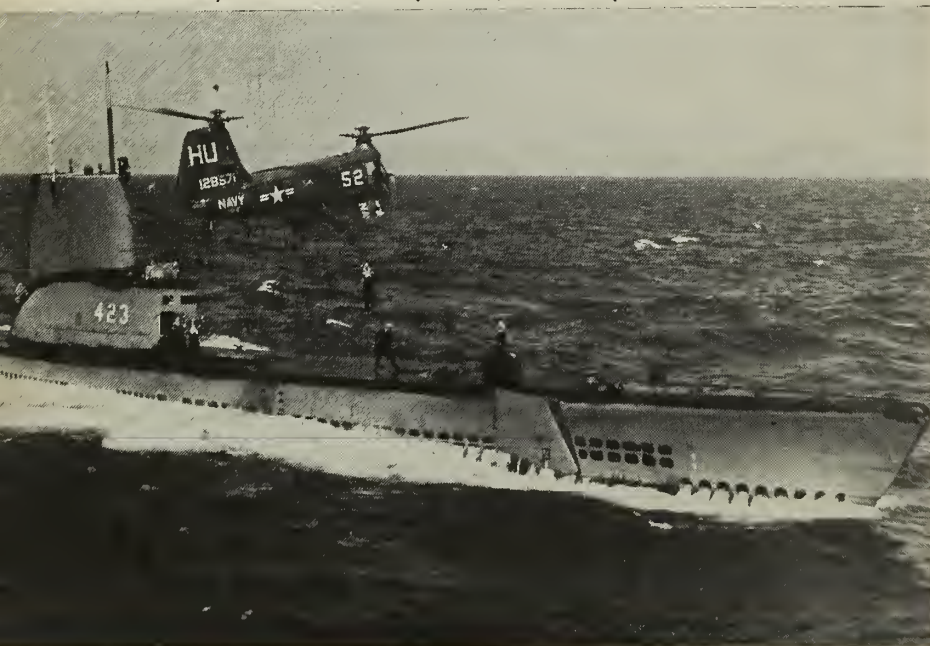
Bataan departed for the West Coast in June 1951, and went to Bremerton, Wash., for overhaul. In January 1952 she left again for the Far East. She conducted air exercises and other training maneuvers off Okinawa until April, then departed once more for Korea. She continued operating between Japan and Korea throughout the summer of 1952, carrying personnel and supplies to the fighting area, and launching strikes against the enemy.

Then, after only a two-month stay in San Diego, *Bataan* returned to Korea once again, and operated in that area until May 1953.

In addition to the seven battle stars previously noted, she was awarded the Korean Presidential Unit Citation for her service during those three cruises.

We're not qualified to express an

AND AWAY WE GO—Helicopter picks up VADM G. W. Anderson, Jr., CO Sixth Fleet, from USS *Torsk* (SS 423) after he joined sub on its 9000th dive.



opinion on the subject of eligibility for the NUC. The awarding of an NUC is finally approved or disapproved by SecNav. The Navy Department Board of Decorations and Medals, basing its decision in large part on recommendations and endorsements received through the chain of command, which we mentioned earlier, makes its recommendation by endorsement to SecNav—and there is a time limit for making such recommendations.

Change No. 4 to the Navy and Marine Corps Awards Manual contains the criteria for award of the NUC. It says:

"The unit must have performed service as a unit of a character comparable to that which would merit the award of a Silver Star Medal or a Legion of Merit to an individual. Normal performance of duty under the ordinary hazards of war, or participation in extended periods of duty or in a large number of combat missions does not in itself justify the award."

Every man who served aboard the ship can feel proud of Bataan's contributions in the Korean fighting.—ED.

How Many AKLs?

SIR: In your article on *uss Banner* (AKL 25) which appeared on pages 8-9 of the March 1960 issue of ALL HANDS, I believe you are mistaken in stating that only three AKLs remain in service, unless you make a distinction between *uss* and *usns* ships.

The *USNS AKL-17* operates out of New Bedford, Mass., supporting the Texas Towers off the New England coast. As an *MSTS* ship, she is still operated by the Navy for military purposes and thus should be qualified as an active duty AKL. In fact, the Air Force tower crews think she is the most important ship in the world.

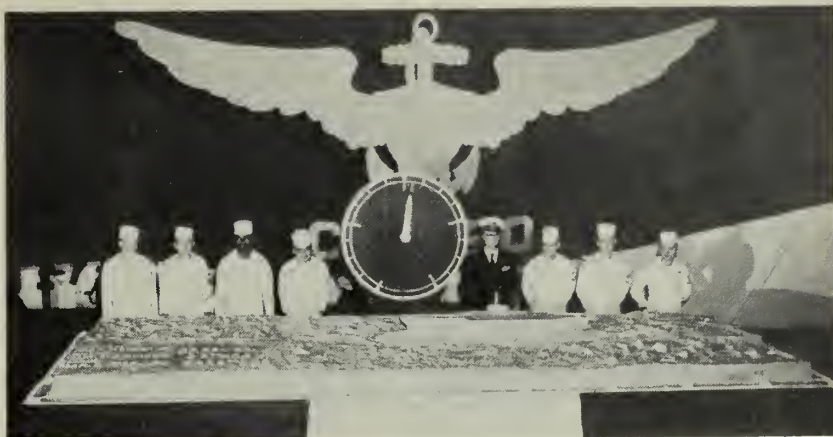
If your article was indeed in error, I think *AKL-17* should rate a mention.—K.R.W., JO2, USN.

• Here's the distinction between *usns* and *uss* ships: *uss* ships are in commission and manned by Navy crews; *usns* ships are active but not in commission. They are "in service" and manned by civilian crews.

However, in doing some added research in response to your letter, we found that our statement regarding *Banner*—"She's one of the Navy's three light cargo ships still active and in commission"—is no longer true. *Banner* is now the only AKL that is still active and in commission.

Since our story was written, *Estero* (ex-*uss* AKL 5) was sold and stricken from the Navy Register. Two other light cargo ships, *Mark* (AKL 12) and *Brule* (AKL 28) are still active on the Navy rolls but are not in commission.

Four other AKLs are assigned to the Military Sea Transportation Service.



BAKING CREW—Commissarymen from *USS Saratoga's* galley pose by gigantic cake they whipped up. Cake measured 18-by-8 feet; wgt. 4115 lbs.

They include "Old Faithful," *USNS AKL-17*, which you mentioned; *USNS AKL-29*, *USNS AKL-31* and *USNS Redbud* (T-AKL 398).—ED.

What's for Dessert?

SIR: Your article "Happy Birthday to You" in the March issue mentioned several 3000-pound cakes that have been baked by Navy commissarymen.

This is a lot of cake, but on 14 April I think *uss Saratoga* (CVA 60) chalked up another first for herself. On that day, to commemorate her fourth birthday, a 4115-pound cake was prepared for the crew and yardworkers at the New York Naval Shipyard.

Besides being huge and good looking, it tasted good.—Cliff Allcorn, AN, USN, *uss Saratoga*.

• We'll eat our words.—ED.

Gold Hash Marks

SIR: For years I have been listening to arguments about enlisted men wearing gold crow and hash marks. Some say you must have 12 years' good conduct (continuous service) in the Regular Navy. Others contend that the 12 years may be in either the Regular Navy or Naval Reserve, on either active or inactive duty, or even broken service.

Can a captain authorize a man to wear gold, or is authorization sent from the Chief of Naval Personnel and then placed in the man's service Record?

Would you clarify this situation?—E. F. M., ENCA, USN.

• To be eligible to wear gold hash marks and rating badge, you must have 12 years' continuous active duty (full time duty) in the Navy and/or Naval Reserve, and have fulfilled the requirements necessary for successive awards of the Navy Good Conduct medal throughout the entire period.

(To be recommended for a Good Conduct Medal, you must: Before 1 Jul 1956—have no mark in conduct of less than 3.0 with an average conduct mark of not less than 3.8 and a final average of not less than 3.5 in profi-

ciency in rating. After 1 Jul 1956—have no special or regular evaluation mark of less than 3.0 in the traits of Military Behavior and Military Appearance.)

Articles 0654-4 and 0767 of Uniform Regulations require that gold be worn by eligible personnel. There is no special entry made in your service record since it already shows the years of continuous active duty served and the number of Good Conduct awards you have earned.

No authorization is required before you put on gold since it is your individual responsibility to maintain your uniforms in a regulation manner.—ED.

CARRIERMEN of *USS Saratoga* (CVA 60) enjoy king-size cake celebrating ship's fourth anniversary with Fleet.





FUTURE CONTROLS for A-subs utilizing electronic computers, data-processing gear, and visual displays are shown in mock-up of integrated control center.

Recollections of WW I

SIR: Some of your readers have called my attention to several articles about *USS Scorpion*—the old station ship at Constantinople, Turkey,—which have appeared in *ALL HANDS* in recent months.

I served in *Scorpion* throughout World War I. From July 1914 through 1916 I was her executive officer under three different captains (who were, in effect, Naval Attaches with principal duties ashore). From early 1917 until late 1918, when I was relieved by CDR E. W. Tod and staff, I was in command.

The *ALL HANDS* articles are essentially correct, except for some minor details.

After the ship was interned for several weeks I was able to grant the usual liberty to the crew on a rotating basis, but gave specific instructions about the places which could be visited, routes to be followed, conduct and such. It was not until two or three months later that the Turkish authorities ordered the crew to be confined to the ship. Yet, even after that, rotational groups were allowed ashore about once a month for three or four hours of "recreational" exercise (walks about the city, visits to the bazaar and the like). Officers were also allowed ashore occasionally in the company of a Turkish officer—usually a naval commander.

Four days before the Turkish Armistice, with the authorization of the Turkish Minister of Marine, Reouf Bey, *Scorpion* again hoisted the American flag, resumed full active status, reoccupied the American Embassy and (among other things) recovered the

ship's funds and returned them aboard. These consisted of several thousand pounds, in gold (two large, heavy suitcases full) which had been stored ashore at a hiding place not in American hands.

A study program, or "school," was set up during the period of strictest confinement. For a certain number of hours, every man on board was supposed to be studying something (whatever was of interest to him), helping someone else in his studies, translating specified articles from newspapers, or

Qualifications for DM Rating

SIR: Before entering the Navy I had four years' experience in mechanical and electronics drafting. In addition, I have completed a nine-month commercial art course. With these qualifications will I be eligible for the revised draftsman rating that stresses illustrating?—I.E., FN, USN.

• *We can't tell you at the moment. The change to the draftsman rating which you referred to was recently approved by the Secretary of the Navy. As a result of this change the DM rating will emphasize illustrative skill and knowledge, as well as basic mechanical and electrical drafting.*

Procedures, training materials and qualifications for this new rating concept are now being developed. It will be approximately a year before the Chief of Naval Personnel will be ready to issue a directive on this change to the draftsman rating.—ED.

at least holding a book in his hand.

Most of the crew studied some language. (We had linguists on board who were capable of assisting in French, German, Spanish, Greek and even Turkish.) The carpenter's mate studied dendrology (trees).

Even our guard—a Turkish soldier—got into the spirit of things and, at his own request, enrolled in our school to study basic English.

We were allowed to receive local newspapers in Greek, Turkish, German and French, plus the *Wiener Freie Presse* from Austria. The various war communiques and other items in these papers that we found interesting, were translated during the daily study period and put in the ship's "paper."

Thus, we learned from an obscure item buried under the heading, "Eglesia" (church), in one of the Greek newspapers, that the first American troops had landed in France. Later, we read in the Austrian newspaper that the Germans in France had encountered a new kind of American soldiers who called themselves "Teufel Hunden" (Devil Dogs). This was about all the detail we had on U. S. news for some three-and-one-half years before the Turkish Armistice was signed on 30 Oct 1918.

The air raids took place while we were moored in the Golden Horn, just off the Admiralty Building. Several of the bombers mistook us for the Sultan's yacht, as we learned afterward from the Dardanelles on the return trip. The men who told us this were turned over to *Scorpion* following the Armistice.

Not long after hostilities ended *Scorpion* was drydocked, and 28 tons of shrimp and mussels were collected from her bottom and sold in the city to the Turkish dockers. That was the docking master's report—28 tons of shrimps and mussels!

Scorpion had been in a reactivated status for a number of weeks before the Australian ship, *HMS Pyramus*, arrived in the Golden Horn after the Armistice. Her captain communicated with London for us to give Admiral Sims the apparently unexpected news that *Scorpion* was still in existence with her crew on board. (At the time of the German Kaiser's visit to Constantinople, and on one other occasion, the powerful Enver Pasha had directed our deportation to Yosgad in eastern Turkey. However, through various delays and intervention by other Turkish officials, this was avoided.)

After the mines had been cleared from the Dardanelles a sizable Allied fleet, commanded by a British admiral, arrived and occupied all of Constantinople Harbor, but allowed *Scorpion* to remain in her old pre-war berth (which she had recently reoccupied) "by reason of prior arrival."

Finally (in December 1918, as I

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, **ALL HANDS Magazine**, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• **uss Idaho (BB 42)**—The third annual reunion will be held in Norfolk, Va., on 17, 18 and 19 June. Write to **uss Idaho Association**, P. O. Box 8048, Norfolk 3, Va.

• **19th Seabees**—A reunion is scheduled for 23, 24 and 25 September in New York City. For more details, write to Herbert McCallen, 655 E. 14th St., New York, N. Y.

• **29th Seabees**—The sixth annual reunion will be held in Chicago on 19, 20 and 21 August. Write to C. W. Miller, 5065 N. Lincoln Ave., Chicago 25, Ill.

• **93rd Seabees**—The 11th annual reunion will be held at the Radisson Hotel, Minneapolis, Minn., on 1, 2 and 3 September. Information is available from S. C. Pegors, 1358 Kentucky Ave., Minneapolis 26, Minn.

• **107th Seabees**—The sixth reunion will be held on 2, 3, 4 and 5 September at the Statler Hotel, Hartford, Conn. Write to John Prindeville, 84 Summer St., Hartford, Conn.

• **Seabee Veterans of America**—The 14th annual reunion will be held in San Diego, Calif., at the El Cortez Hotel, on 18, 19, 20 and 21 August. For information, write to Tom W. Reside, 2565 Columbia St., San Diego 1, Calif.

• **Waves**—The 18th annual reunion is scheduled for 29, 30 and 31 July in Dallas, Tex. For details, write to National Waves Reunion Committee, P. O. Box 564, Dallas 21, Tex.

• **uss Augusta (CA 31)**—Those interested in holding a reunion with

time and place to be decided, may write to Joseph P. Menighan, 154 W. Washington St., Wilkes-Barre, Pa.

• **uss Cannon (DE 99)**—All who served on board during World War II and who are interested in holding a reunion in Philadelphia next November may write to Robert T. Olinger, 442 Violet Drive, New Kensington, Pa.

• **Dive Bombing Squadron (VB 19)**—Those who served from September 1943 to December 1945 and who are interested in holding a reunion may write to George T. Lewis, Jr., Suite 2410, Sterick Building, Memphis, Tenn.

• **uss Mobile (CL 63)**—A reunion is proposed for this year in Houston, Tex. Write to Travis N. Price, 1017 Linda Lane, Nacogdoches, Tex.

• **uss Rowe (DD 564)**—Those who served from 1952 through 1956 who are interested in a reunion may write to Louis Salvadeo, 35 Lodi St., Hackensack, N. J.

recall) **uss Nahma** brought in a full crew of officers and enlisted men to relieve us.—CAPT H. S. Babbitt, USN (Ret.)

• *Since January 1959 when we ran our first letter on Scorpion, we have printed quite a few yarns about this unusual ship and the events which surrounded her. Many of the episodes have sounded so colorful that some present-day Navymen may have gotten the idea these things all happened in the far, far distant past. Hearing the straight scoop from the ship's skipper should help convince these so-called youngsters that Scorpion is really not such ancient history after all.*

Thanks, Captain, for your contribu-

tion toward setting them straight about a ship that probably holds some sort of record for the number of interesting true "sea stories" that can be told of her.—ED.

First Doctor in Wolverine

SIR: I was interested in the article published in the April 1960 **ALL HANDS Magazine** titled "Paddle Wheel Flat-top" because I was the first medical officer assigned to duty aboard **uss Wolverine (IX 46)**.

One of the experiences I will long remember was a rather cold, slow ride on board after the passenger ship had been dismantled and was being towed from Cleveland to Buffalo by slow tug.

Later duty as shipyard doctor during the conversion and early training cruises also offered plenty of excitement.

If I recall, **Wolverine's** flight deck was only 24 feet above the water. This made the take-offs a little hairy, especially since the ship had no catapults and could make only 16 knots. We frequently had to comb the Lakes to find a little wind to assist us.

I believe this duty was more nerve-racking for me than actual combat duty, or being aboard **uss Bismarck Sea (CVE 95)** when she was sunk off Iwo Jima in 1945.—CAPT R. G. Witwer, MC, USN.

• *Thanks for the postscript to the paddle wheel flattop story.—ED.*

...how to send ALL HANDS to the folks at home

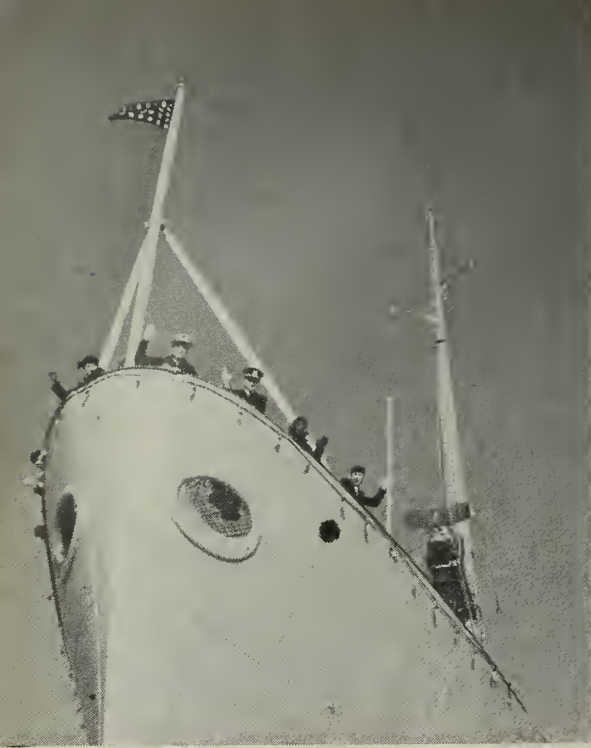
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STANDING BY during operations near Arctic Circle can be cold work.



PARKAS are a must as flight deck crew checks wind with anemometer.

PLAN OF THE DA



BIG EYES give thorough once-over to strange ship in foreign waters.



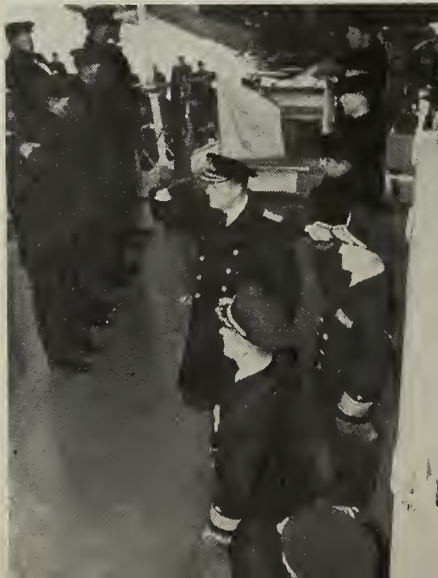
WHEELHOUSE TALKER looks alive as rugged shoreline comes into view out of fog.



AT GREENOCK mooring lines are secured and ornamented rat guards set in place.

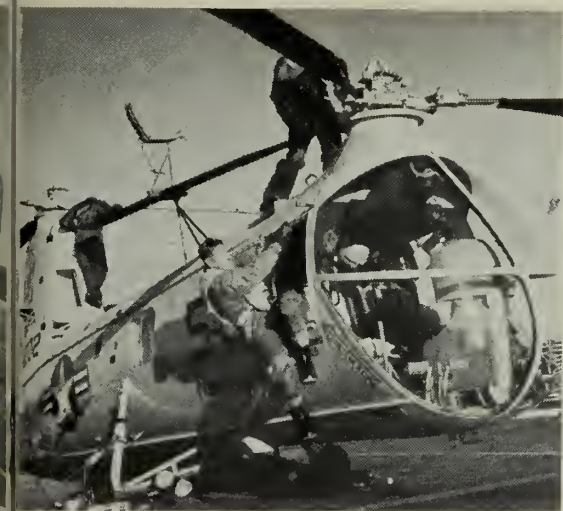


HONORS to Norwegian king. Admiral, Captain and Marines respond to Navy band's rendering of national anthems.



SMART LANDING of ship's vehicles by deck force always attracts interested bystanders at the piers in every port.





FLIGHT DECK of cruiser resembles carrier as heli blades are unfolded and pilot eases into cockpit.



BATTEN DOWN—Tarp covers of life boats are secured as wind freshens.



ROUGH WEATHER'S AHEAD as ship cruises off Norway's coast.

DAY — ABOVE DECKS



HEAVE HO—Sheer muscle power at the right time brings ship neatly alongside the pier.



FILL 'ER UP—Harbor tanker pulls in close to give the ship's fuel tanks a big drink.



NOW HEAR THIS—Prompt action results as bo'sun passes the word.



DRESS SHIP — Within a few minutes after ship pulls alongside pier, all hands are prepared to receive visitors.



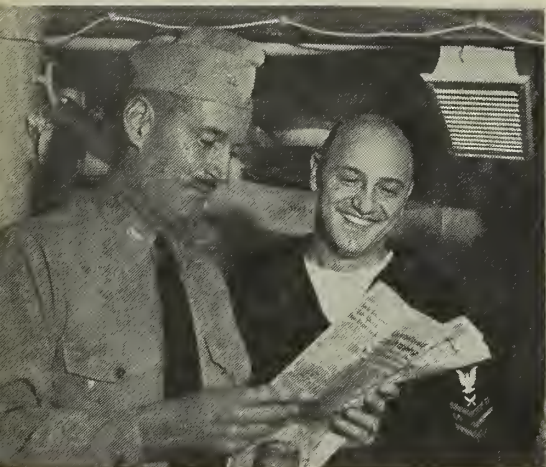
WELCOME ABOARD—Distinguished visitor is shown about by crew member as exchange of visits gets underway.



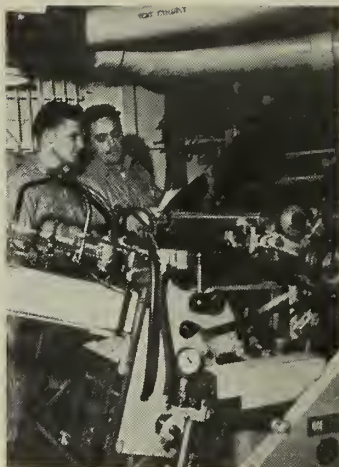


DOWN THE TRUNK to the after steering control room finds and electricians in constant check on the ship's rudder

JOBS INSIDE



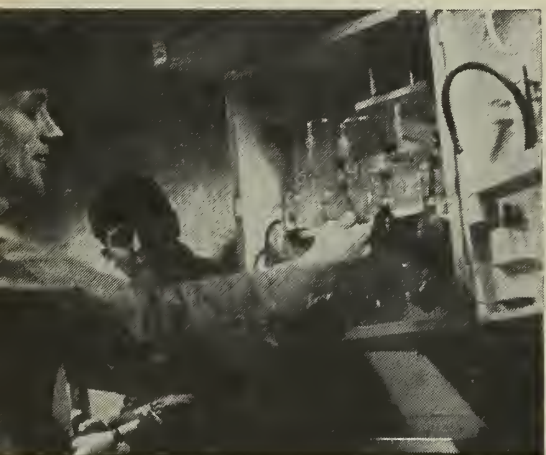
POWER OF PRESS FOR information and morale is proven by popularity of ship's paper.



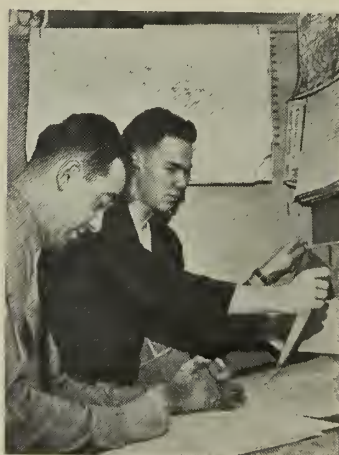
PRESSES ROLL day and night, doing mimeo to color work.



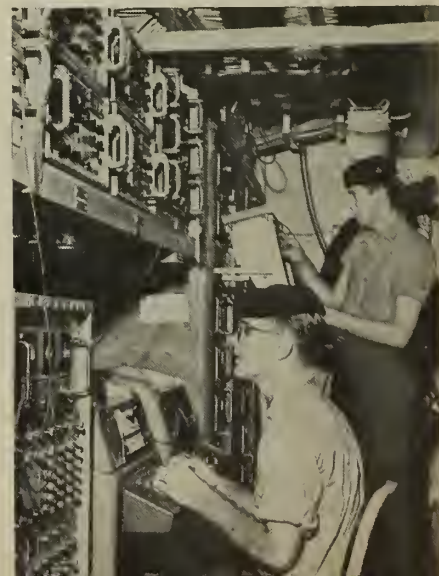
SHARP UNIFORMS are a specialty of the ship's servicemen of the laundry shop. ROUND THE WORLD in two seconds was accomplishment of hot-shot communications men and ship-shape equipment.



WATER SAMPLES—are tested often and regularly for ship's many and varied uses.



WEATHERMEN's reports are relied upon for ship's activities.

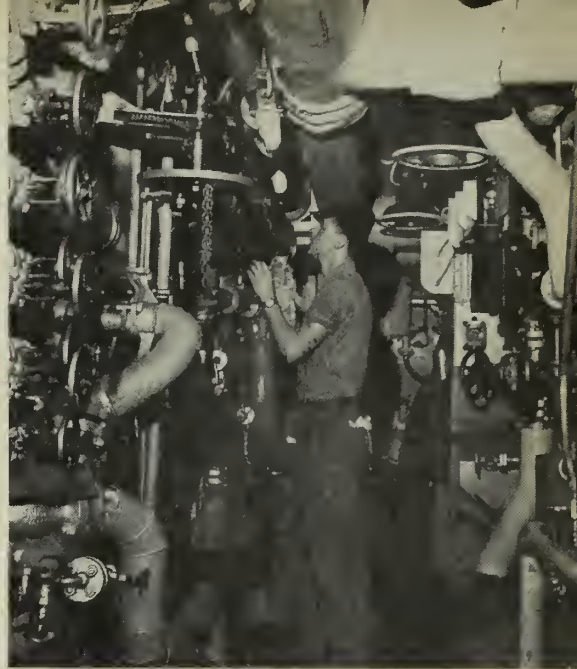




alert quartermasters, enginemen, operations while underway at sea.



BOILER ROOM calls for teamwork, timing and a sure touch on controls.



MEN WHO KNOW control a complicated maze of pipes and valves for ship's power.

& BELOW DECKS



FIT AS A FIDDLE—Hospital corpsmen assist doctors in constant check.



COBBLER SHOP—keeps late hours repairing enough shoes for a small town.



AUTOMATIC MIXERS save man-hours for cooks preparing time-tested Navy recipes.



TELETYPE REPAIR is a never-ending job demanding patience and skill.

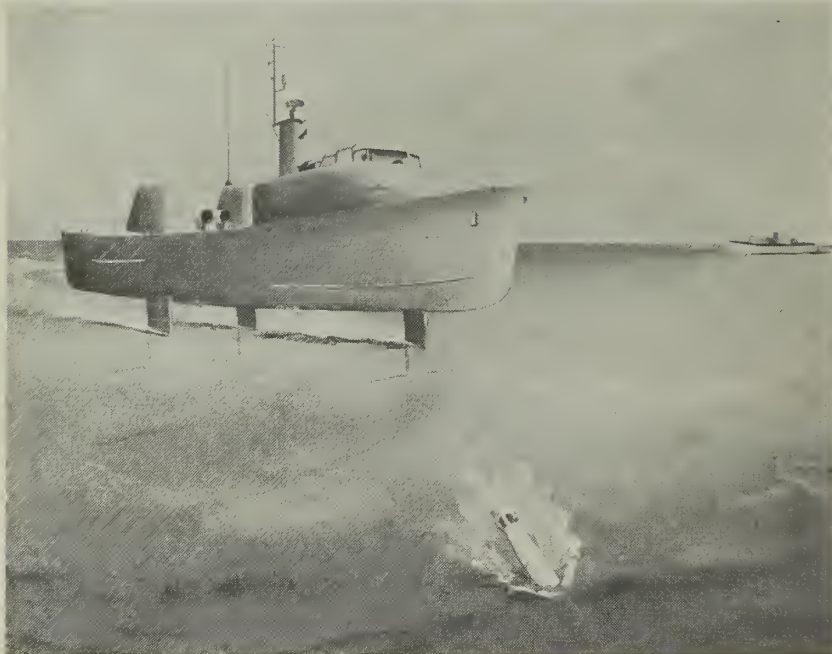


SHIP'S SHERIFFS get assignments for assisting in plan of guiding visitors.



DAY AND NIGHT quartermasters' duties call for keeping on alert with an eye on the bug.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



UP AND AT 'EM — Navy's hydrofoil antisubmarine patrol craft is shown in artist's drawing firing homing torpedo as it rides high on extended foils.

Tamaaraa on Tahiti

Many men on Deep Freeze have probably longed for a few days on a tropical island. Few of them seriously believe it's possible, and even fewer have seen their dreams come true.

For 170 officers and men of *uss Peterson* (DE 152), however, this vision has materialized. The escort vessel spent three and one-half days at Papeete, Tahiti, when they returned recently from Operation Deep Freeze 60.

The warm climate of Tahiti was a welcome change. Swimming suits, colorful native shirts and straw hats were common attire for the men at the beaches. Others rented motor scooters and toured the island.

The entire visit was enjoyable, but the last day in Tahiti was something special: A tamaaraa—similar to a Hawaiian luau—was organized. Tropical dishes at the feast included raw fish, roast pig, breadfruit, roast banana, poi and native wine. Highlight of the tamaaraa (according to the Navymen) was the hula dancers.

To climax the festivities, the visitors participated in a Tahitian Mardi Gras.

The next day, as *Peterson* left the island, over 300 persons were on the pier to say goodbye. Once again the sailors wore flower leis. As the ship passed over the opening in the reef, the leis were thrown overboard, symbolizing in Tahitian tradition, an intended return to the island.

AmPhibRon Ten Hits the Beach

Spearheaded by the amphibious assault ship *uss Boxer* (LPH 4), Amphibious Squadron 10 conducted two amphibious assault landings in connection with *Brigadelex* 2-60 during April and early May.

Brigadelex 2-60 was the second of a series of exercises designed to train Amphibious Squadron 10 in the planning and execution of amphibious exercises involving across-the-beach and vertical-assault landings.

Loading the 10th Provisional Marine Brigade at Camp Lejeune in early April, the fast amphibious task force then proceeded to Vieques, Puerto Rico, where it made an assault landing.

While en route to Vieques, Marine helicopter squadron 264 conducted carrier qualifications and loading drills in preparation for the assault.

Another landing was made at Camp Lejeune which provided for the off-loading of the 10th Marines, the 2nd Marine Division's famed artillery regiment.

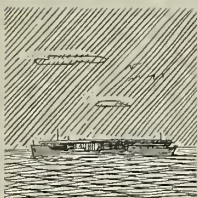
Fire Prevention Award Winners

U. S. Naval Station, Norfolk, Va., was the most fire prevention-conscious naval facility of them all in 1959. And, for its efforts, the Norfolk station has been awarded the National Fire Protection Association's Grand Award.

NavSta Norfolk topped a field of 119 Navy activities competing in the contest. Each year the Association selects cities, towns, states and military installations in the U. S. and Canada which have achieved outstanding records in year-around fire prevention education and training programs.

A total of 28 naval shore activities won awards in the military division for 1959, in three major categories. These categories are determined by the number of personnel on board. Besides NavSta Norfolk in the large facility category (more than 3500 personnel), *Naval Propellant Plant, Indian Head, Md.*, got the top award in the medium facility division (1500 to 3500), and *Naval Ammunition Depot, Hawthorne, Nev.*, won top

YESTERDAY'S NAVY



On 2 Jun 1941 *uss Long Island* (AVG—later CVE—1), the first escort carrier, was commissioned. On 3 Jun 1898 R. P. Hobson and a crew of seven men made a daring attempt to close the harbor of Santiago de Cuba by sinking the collier *Merrimac* across its entrance. On 8 Jun 1880 Congress authorized the President to appoint a Judge Advocate General of the Navy. On 9 Jun 1942 an operating base was established at Kodiak, Alaska. On 21 Jun 1866 an Act of Congress authorized the establishment of a Hydrographic Office within the Navy Department.

small category (under 1500) honors.

Others cited were:

Large category: Runner-up, Naval Base, Subic Bay, Philippines; third place, Marine Corps Recruit Depot, Parris Island, S. C.; honorable mention, NAS North Island, San Diego; Armed Forces (Pacific) 14th Naval District, Hawaii; NavShipYd, Boston; Marine Corps Base, Camp Pendleton; Naval Base, Guantanamo Bay; FltActs, Yokosuka; Naval Consolidated Area, Potomac River Naval Command.

Medium category: Runner-up, NAS Lakehurst, N. J.; third place, Naval Ordnance Laboratory, Silver Spring, Md.; honorable mention, Naval Weapons Laboratory, Dahlgren, Va.; NavSta Argentia, Newfoundland; Naval Supply Depot, Bayonne, N. J.; NAS Atsugi; NAS Moffett Field; NavSta Sangley Point, Philippines; Naval Ammunition Depot, Crane, Ind.

Small category: Runner-up, NavSta San Juan, Puerto Rico; third place, NavSta Roosevelt Roads, Puerto Rico; honorable mention, Naval Supply Depot, Clearfield, Utah; Naval Supply Center, Cheatham Annex, Va.; NAAS Brown Field, Calif.; David Taylor Model Basin, Washington, D. C.; NavSta New Orleans.

Lantphibex Maneuvers

Lantphibex 1-60, the largest Atlantic Fleet amphibious exercise scheduled for the year, and the first of its kind to be held since 1958, was conducted in Virginia and North Carolina coastal areas during the latter part of March and early April.

Approximately 40,000 sailors and Marines aboard 40 ships and amphibious craft, as well as supporting Navy and Marine Corps planes, participated in the 15-day operation.

Lantphibex 1-60 was conducted to help maintain the combat efficiency of the Atlantic Fleet Amphibious Forces in keeping with their role as a force-in-readiness.

VADM George C. Townner, USN, COMPHIBLANT, was in over-all command of the exercise and personally commanded the Amphibious Task Force. Units of the 2nd Marine Division and the 2nd Marine Aircraft Wing made up the Air-Ground Task Force during the exercise and were commanded by LGEN J. C. Burger, USMC, Commanding General, FMFLANT.

In operations preceding the main



FIRST LOOK—Recruits line the rail on bow of *USS Charles Berry* (DE 1035) during visit to ship. Over 1100 recruits have visited *Berry* in three months.

assault, personnel and equipment were off-loaded from ships in the vicinity of Morehead City, N. C., while reconnaissance elements were parachuted into the objective area.

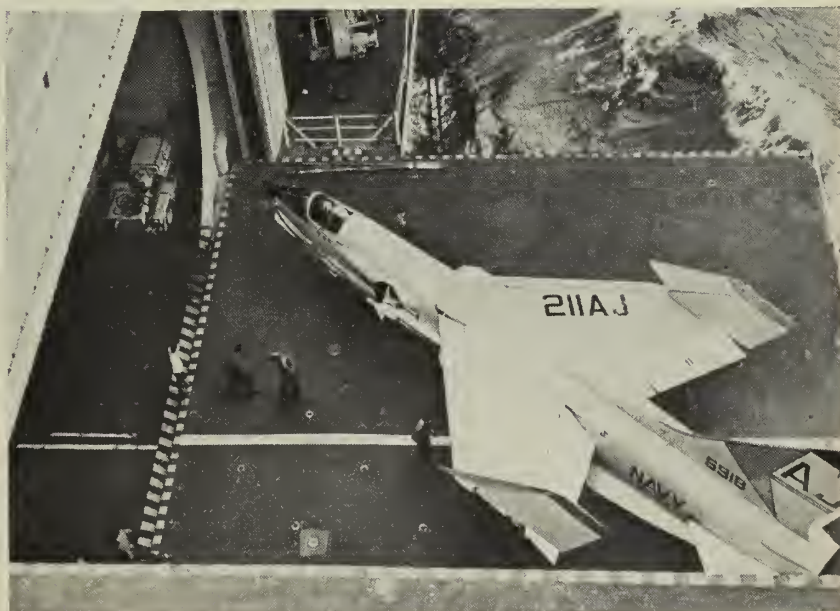
On D-Day, Marines stormed ashore at Onslow Beach, N. C., following other Marines previously landed by helicopters who made an H-hour seizure of the New River (N. C.) Air Facility in a demonstration of the Corps' new technique of vertical envelopment.

Simulated nuclear weapons were

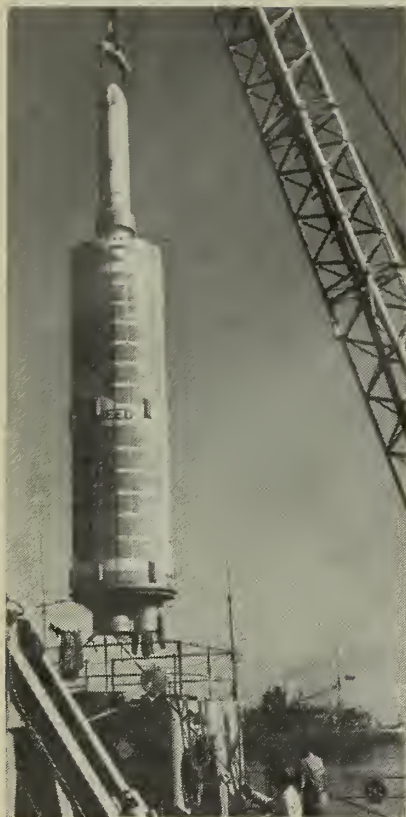
used by the opposing forces during the D-Day assault.

Once ashore, operations against the enemy included destruction of enemy buildups by ground forces, air strikes outside friendly territory against major enemy forces, and tactical air strikes against enemy forces attacking allied territory.

Since World War II, exercises of this type, together with modifications of tactical doctrine, techniques, weapons and equipment, have been conducted by the amphibians.



TIGHT FIT—Lifting an F8U jet fighter to the flight deck calls for close handling as it takes up almost all of the elevator aboard *USS Forrestal* (CVA 59).



DOLPHIN, launching and training vehicle for *Polaris*, is placed into submersible launching tubs for test.

New Class of *Polaris* Subs

The builder of *uss Nautilus*, SS(N) 571, will design and submit initial construction plans for a new class of Fleet Ballistic Missile (*Polaris*) submarines.

This design contract will initiate a third class of *Polaris* submarine to be known as the SSB(N) 616 class.

The first *Polaris* submarine, *uss George Washington*, SSB(N) 598, and four others of the same class are basically the same design as *uss Skipjack*, SS(N) 585, although longer and modified to accommodate a missile compartment.

The second generation of FBM submarines, known as the SSB(N) 608 class from the lead ship, *Ethan Allen*, were originally designed as *Polaris*-firing submarines.

Although the new sub will be similar to *Ethan Allen*, it will have certain improvements including newer weapons system techniques.

Corvus Test Successful

A *Corvus* test vehicle was launched recently from an A3D jet aircraft at a surface target in the

sea-test area of the Pacific Missile Range.

Supersonic *Corvus* is designed for penetrating heavily defended areas and for use against surface ships. The missile will use a pre-packaged liquid rocket engine and its size will permit its use by carrier-based aircraft.

The Navy recently awarded a contract for continued development and flight-test work. Test of the *Corvus* missile is being conducted at the Naval Missile Center, Pt. Mugu, Calif.

Corvus was first successfully air-launched last year. It is being developed under the "weapons system" concept.

Polaris Assembly Unit

A new *Polaris* missile assembly facility of the Naval Weapons Annex at the Naval Ammunition Depot, Charleston, S. C., began operations on 1 April.

The 880-acre installation will link industrial producers of *Polaris* parts to the Fleet. Contractors on both coasts will ship missile parts to the Weapons Annex for assembly, check-out, and loading into nuclear-powered Fleet ballistic missile submarines.

Through FBM submarine tenders, NWA will also support FBM submarines deployed overseas. This will

include overhaul and modification of missiles returned to Charleston from FBM submarines.

Nineteen officers and 200 enlisted men have been assigned to operate the facility and assemble the missiles. They will be assisted by 125 technical advisers from commercial builders of *Polaris* parts.

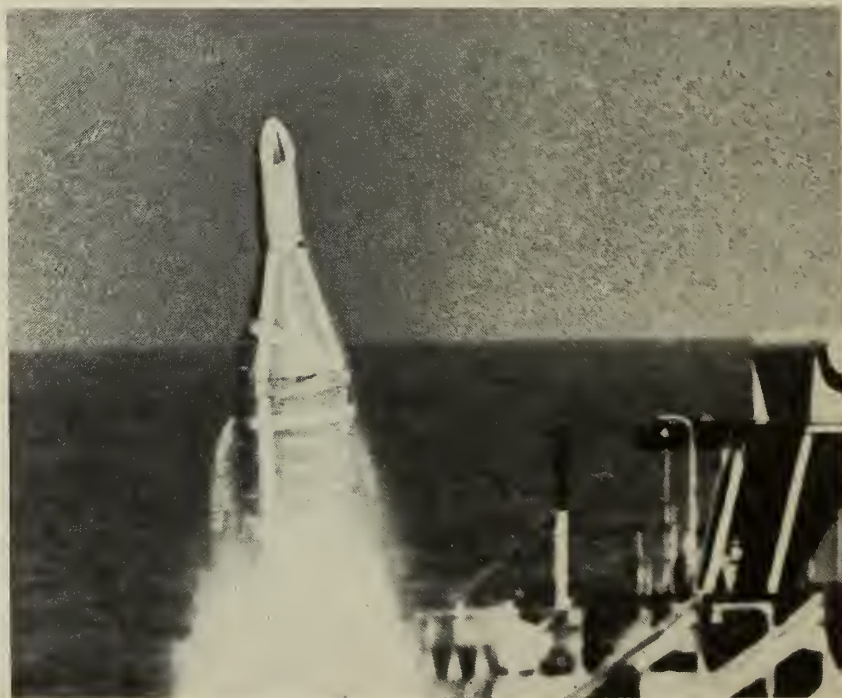
Polaris Fuel Process

Solid propellant fuel for the *Polaris* ballistic missile is now being mixed in small, carefully controlled amounts rather than the 2000-pound plus batches formerly brewed up.

Big gains being realized through the new process: Improved quality control, reduced labor costs, increased safety.

Major difficulties in the past stemmed from the fact that only about 10 pounds of each 2200-pound batch of fuel were getting quality-control tests. Now, with only 20 to 25 pounds of the propellant under preparation at any given moment, tests can be made continuously as the ingredients pass through the mixer.

The first large-scale application of this continuous mixing process has been set up by a commercial organization. This facility is designed specifically for *Polaris* fuel, but the newly developed process could be applied to other solid rocket fuels.



POLARIS TRAINING device breaks out of water. After testing at Naval Ordnance Test Station, San Clements, Cal., it will be used to train crews.

Sub Launches Test Vehicle

USS *George Washington*, SSB(N) 598, has successfully launched a full-scale dummy test vehicle from underwater.

The *Dolphin* shot, as the Launching and Training Vehicle (LTV) is known, proved that the compressed-air launching system is capable of firing actual *Polaris* missiles from underwater. *Polaris* will be shot to the surface by compressed air before solid-fuel rocket engines are ignited.

Countdown procedures aboard the Navy's first *Polaris*-firing submarine were the same as if the dummy had been an actual missile.

The dummy missiles, designed for launching-system testing and crew training, carry neither warhead nor fuel. They have previously been used off the Southern California coast to check out submarine-launching systems before insertion of live missiles, to train submarine crews in missile launching, and to determine underwater trajectories of missiles in sea conditions ranging up to hurricane force.

Mobile Classrooms

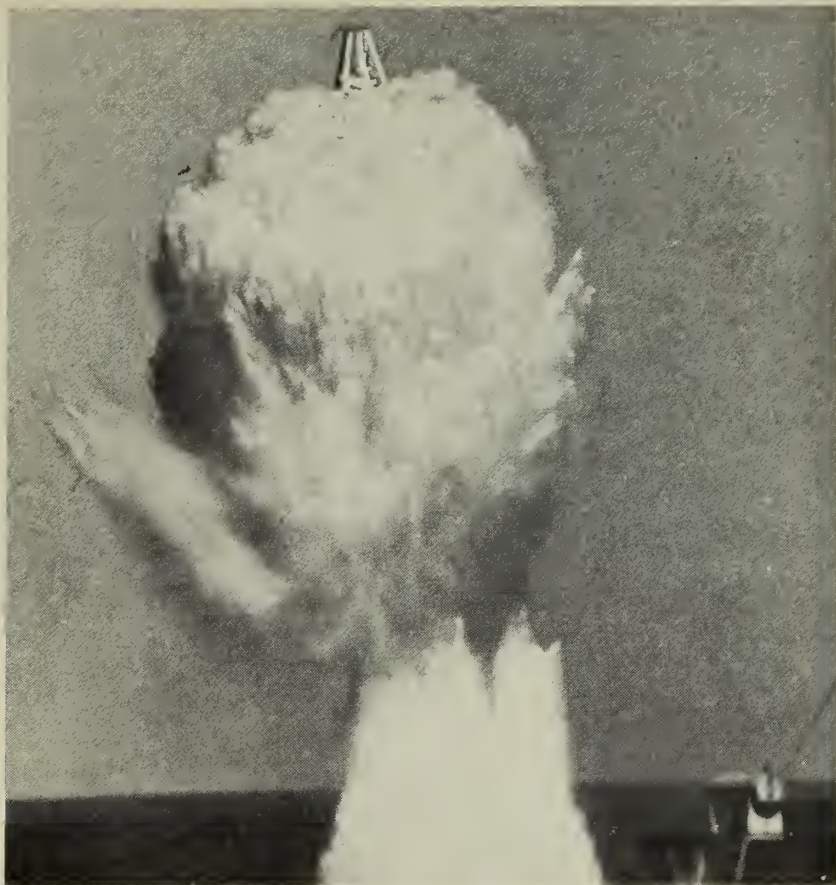
In the normal course of events if you get orders to a Navy school you expect to travel to the school's location, unpack your seabag, and settle down for a specified period of instruction.

That's not necessarily the case, however, if you're scheduled for some training through the courtesy of the Naval Air Mobile Training Group. Chances are you'll stay right where you are, and one of NAMTRAGRU's 68 detachments will bring the training to you.

Upwards of 700 instructors and supporting personnel make up NAMTRAGRU's roster. Some 600 of them operate out in the field; the remainder at NAS Memphis headquarters. Their mission: To "provide by means of Naval Air Mobile Training detachments, technical training for officers and enlisted personnel in the operation, maintenance and repair of aircraft and associated equipment, and to conduct such other training as CNO may direct."

The above is a fine example of official verbiage, but boiled down it amounts to this—NAMTRAGRU provides on-the-spot training to a large number of men at a low cost.

For example: NAMTRAGRU's 68 detachments instructed more than



BIG SPLASH—*Dolphin* reaches top of its run after firing from under water. It will deballast and float on the surface and will be picked up for reuse.

42,000 students in 300 different courses during 1959. It's estimated that the number will rise to more than 48,000 this year.

Training included maintenance of aircraft and armament systems plus their associated equipment, specific aircraft engines and gas turbine compressors, the ejection seat, and air-launched guided missiles. Some detachments taught cockpit procedures for pilots and maintenance personnel. In addition, NAMTRAGRU's syllabus now includes such items as maintenance administration; ABC warfare defense, and the fundamentals of hydraulics, jet and reciprocating engines and electricity.

For all of this and much more, the cost to the Navy is small. Considering all expenses—instructor salaries and travel funds, instruction spaces and more than \$25 million worth of training aids—this instruction is quite a bargain—slightly more than \$3.50 per student hour.

What does all this mean to you? If you're one of those charged with spending the Navy's share of the defense dollar to the best possible

advantage, the fact that this training method saves many thousands of both dollars and man-hours should certainly appeal to you.

If you were a CO it could provide you a way to keep your command more or less intact, and still provide your men with the training they need right in their own back yard. If you're a family man, it gives you an opportunity to get vitally needed schooling without having to leave the wife and kids.

NAMTRAGRU hasn't always operated out of Memphis. It was inaugurated in Norfolk in January 1944 as a part of the Advanced Base Aviation Training Unit. In November 1944, it was relocated at NAS St. Louis, Mo., and the following year moved to NATTC Memphis, where it was placed under the command of the Chief of Naval Air Technical Training.

The types of training offered have undergone just as many changes. In the beginning the program was concerned mainly with maintenance instruction (except electronics) of various types of aircraft. The scope



FULL HONORS are given SecNav W. B. Franke on visit to USS *Helena* (CA 75) while operating off Taiwan.

of instruction has been continuously expanded to keep pace with the increasing complexity of naval aircraft and their equipment. In the future a complete training package will be furnished for each new type of aircraft. Eventually, the program will probably replace most of the present class "C" schools.

Mobile training doesn't necessarily mean a "school on wheels." In NAMTRAGRU's case, "mobile" more accurately denotes flexibility. Most classrooms are actually situated in training buildings or hangars.

Two school concepts exist within Naval Air Technical Training. Resident schools are orientated toward theory. Mobile, or field, schools specialize in equipment, with a schedule dictated by the operational needs of the Fleet. Each detachment is ready to move on short notice, to wherever its services are called for by a Fleet unit.

Not long ago, for example, COMNAVAIRLANT requested that training concerning an electronics navigation system be incorporated into the curriculum offered by one particular detachment. Within three months, training aids had been constructed, instructors trained, lesson plans drafted and classes started.

NAMTRAGRU's training isn't accidental—it's the end product of much careful planning and organizing in the Bureaus and at the Group's Memphis headquarters.

Long before a new aircraft gets to the Fleet, for instance, CNO decides the number and type of trainers that will be needed to check out squadron personnel on the new plane. Following a design conference with NAMTRAGRU representatives, BuWeps budgets and contracts for the trainer, prepares specifications, and arranges for publications and factory training.

Previously, maintenance personnel from a Fleet unit were sent through a factory training program. This was both expensive and time-consuming. Now, future NAMTRAGRU instructors are given this training. Once through the course, they're able to pass on what they learn to many different squadrons.

The trainer is manufactured, accepted by the Navy, and transported to Memphis. There a training plan is prepared, and the trainer gets its "shakedown"—a dress rehearsal for future instructors, complete with everything, including students. In the process, instructors become experts. Then the detachment moves on to wherever it's needed—operating unit, training activity or test center.

Hydrographic Survey by Sub

Crew members of USS *Archerfish* (AGSS 311) will probably not be home for Christmas. The special crew of volunteers—all but two unmarried—sailed from New London, Conn., in May for a two-year sub-

marine hydrographic survey of the Atlantic and Pacific Oceans.

The cruise, dubbed "Operation Sea Scan," is not a new experience for *Archerfish*. She made a somewhat shorter one in 1958.

Archerfish, which underwent certain repairs and alterations before leaving, is a veteran of seven Pacific war patrols during World War II. Her largest kill was the 59,000-ton Japanese aircraft carrier *Shinano*, biggest warship afloat at that time. *Archerfish* was also one of 12 submarines in Tokyo Bay to witness the signing of the Japanese surrender.

Scientists from the Naval Hydrographic Office in Washington, D. C., are aboard *Archerfish* to do the actual survey during "Sea Scan."

How to Use a Chute

Ask any Navy flier—he'll tell you that his survival equipment, and its proper use, could easily mean the difference between life and death.

The Navy doesn't leave indoctrination in such an important item to chance. Take Heavy Attack Squadron 11, for instance, currently operating with the Sixth Fleet on board the attack aircraft carrier USS *Franklin D. Roosevelt* (CVA 42.)

All day and every day within FDR's hangar bay, a team from VAH-11's aviation equipment division is lecturing and training squadron flight crews in the correct use of their survival equipment.



JUST IN CASE—R. Feeback, AT1, gets the word on parachute operation from D. Airhart, PR2, during survival class on USS *Franklin D. Roosevelt* (CVA 42).

A part of that instruction is the simulation of an actual parachute drop into the sea. Using a chain hoist, crew members are hoisted into the air, chute and all.

They're shown exactly how to position themselves in the chute while descending, how to prepare the liferaft (which is packed in the parachute) for inflation, and how to release themselves from the chute as they contact the water.

VAH-11's survival instructors will be mighty happy if the tricks they're teaching never have to be used. If one of the squadron's planes does cut out, however, its crew will be able to hit the silk armed with the comforting thought that they've got both the equipment and the training to survive.

Gold Hashmark Club

To maintain 12 years of continuous good conduct is not easy. But when an enlisted man has reached this milestone, he stands out among petty officers because he wears a gold rating badge and hashmarks on his blue uniforms.

Men aboard *uss Bon Homme Richard* (CVA 31) felt that this wasn't enough recognition for these men who have upheld the Navy's high standard of conduct over the years.

To help these men get the added recognition, a Gold Hashmark Club has been formed aboard the *Bonnie Dick*. To their knowledge, theirs is the first one in the Navy.

These 47 chiefs, and 90 other petty officers—all of whom rate gold—now do get certain added privileges. First, all members of the organization are issued liberty cards which are kept as long as they are assigned to the ship. And by wearing their gold hashmarks and rating badges they don't show either their liberty card, ID card, or property pass when leaving or boarding the ship.

The specially designed liberty card is white with a gold border and has a large "H" superimposed on its face. On the back of each card is printed, "This card identifies a member of the Gold Hashmark Club of *uss Bon Homme Richard* (CVA 31). Membership in the Gold Hashmark Club is restricted to those who have served in the U. S. Navy for at least 12 consecutive years with good conduct as prescribed by Navy Regulations . . ."

Around the World in 36 Seconds — with a Weasel Yet

Around and around the whole wide world

Pop goes the weasel.

The Chief ended up with his head in a whirl

Pop goes the weasel.

The above abomination, with apologies to the unknown author of the original, is by way of an introduction to chief construction mechanic Gerald R. Dubois, USN, and his experiences during a year's sojourn at the Amundson-Scott IGY South Pole Station.

One day for instance, Chief Dubois outdid the jet age. Clambering aboard a weasel (a type of small tractor) he drove it around some 159 fuel drums circling the flag pole which marks the exact geographical location of the Pole, hitting all four points on the compass in just 36 seconds.

Dubois had occasion to relive some of those experiences recently when he was presented with a Letter of Commendation with Metal Pendant from SecNav for his "outstanding performance of duty" there.

In all, Chief Dubois and his companions—seven military and 10 civilian—spent nearly a year at the station, including a night 186 days long. During the February-through-September winter season, the temperature averaged a coolish 74.7 degrees below zero. It ranged all the way from five above on a

balmy day in January to a brisk 101.7 below in June.

Several of the men, including Dubois, had their fingertips and faces frozen numerous times, including some second degree cases which blistered and pecked. This, in spite of the fact that they were dressed about as thoroughly for the conditions as they could be and still be able to move about.

The civilian segment of the party included glaciologists, seismologists, aerologists and astronomers. Navymen in addition to Dubois included an LT(MC), two radiomen, a utilityman, a construction electrician, an electronics technician and a commissaryman.

Besides the scientific work they were conducting, much of the group's time was spent in recovery of supplies and equipment dropped to them from the air.

In a group as small as this, with so many tasks to be performed, another highly-prized virtue was versatility—and Chief Dubois apparently was as versatile as any. Aside from his main duties—operation and maintenance of all equipment—he pitched in to help run the generators, relieved the cook on occasion, ran the movie projector, and acted as company barber.

Dubois was presented his Letter of Commendation at his present duty, NTC Great Lakes.



WORLD TRAVELER — A Weasel similar to this one recently was piloted around the world in 36 seconds by G. R. Dubois, CMC, USN, at South Pole.

THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

• **GS TRAINING**—Top pay grade guided missilemen will get advanced training in their specialty now through a new Class B course recently established at the U. S. Naval Guided Missiles School, Pomona, Calif.

Guided Missilemen in pay grades E-5 and above, in their second or subsequent enlistment, who would have at least two years obligated service remaining after completion of the course, are eligible to apply for this training. SECRET clearance is another requirement. The course is not available for conversion of other ratings to the GS rating.

Length of the course is 38 weeks. Nineteen of those weeks are devoted to training in mathematics, physics and electronics. The other half of the course offers instruction in the principles of various guided missile systems, using current systems as the vehicles for instruction.

Convening dates of the next two classes are 18 Jul 1960, and 30 Jan 1961.

• **RAIL FARE REDUCTION**—Navy-men on leave, furlough or pass will continue to receive a 40 per cent reduction in rail fare between any points in the United States.

The reduction in rail fare for all members of U. S. armed forces had been due to expire 30 June, but has been extended through next 31 December.

Navy-men and women in uniform may purchase the special tickets upon presentation at railroad ticket

offices of properly executed leave of absence, furlough or other pass papers. The tickets carry full stop-over and baggage checking privileges.

• **RETIRED, RETAINER PAY ALLOTMENTS**—Personnel on the retired list or in the Fleet Reserve are authorized to make allotment of their retired/retainer pay only for payment of insurance premiums and the liquidation of indebtedness to the government.

These allotments may be carried forward from active duty to the retired/retainer rolls merely by placing a red check in Item 21 of the pay records submitted to the Naval Finance Center.

Allotments may also be registered or stopped at any time after your retirement or transfer to the Fleet Reserve. Since personnel in an inactive status do not normally have access to Allotment Authorization Form (NavCompt Form 545), the Special Payments Department of the Navy Finance Center at Cleveland, Ohio, will accept informal, personally signed letters requesting registration or discontinuance of an allotment. Since your power of attorney or signature is required, requests by wire or telephone will not be accepted.

• **PHYSICALS FOR TEMPORARY LTJGs**—If you're a lieutenant (junior grade) in the Regular Navy, with date of rank as permanent ensign of the line or staff of 1 Jul 1959 or earlier, fiscal 1961, which begins 1

July, will see you become eligible for selection for promotion to lieutenant.

If, like most of your contemporaries, you are currently serving under a temporary appointment, however, here's a reminder—under the law, you are ineligible for consideration by a selection board. To become eligible it will be necessary that you be permanently appointed LTJG.

You should receive orders from your CO to report for a physical examination for *permanent* promotion to LTJG at least two months before the third anniversary of your date of rank as ensign.

• **COMMERCIAL AIR INSURANCE**—If you face the prospect of an airplane trip (military or civilian—and most Navymen do at one time or another—is your present insurance coverage adequate?

It's human nature, of course, to feel that accidents always happen to the other guy, but if you have a wife and children to consider, it's a question you can't afford to duck.

At today's inflated prices, your \$10,000 NSLI or USGLI protection "just ain't what it usta be." Many of today's Navymen, moreover, don't possess such coverage. While many men carry insurance with a civilian company, many policies contain restrictive clauses concerning air travel. Those clauses often limit the liability of the company in the event death occurs as the result of an aircraft accident. In such cases beneficiaries usually receive only the policy reserve or the premiums paid to date instead of the face value of the policy.

Such protection, you'll agree, is highly unsatisfactory. That's why you should take a long look at the inexpensive trip insurance offered by



"THERE'S MORE THAN ONE WAY to score a hit. . . . Pass this copy of ALL HANDS on to nine other readers."

commercial companies at both civilian airports and Military Air Transportation Service terminals.

Trip insurance coverage while on official business (or pleasure), is not available through any government agency, but commercial insurance companies offer practically any amount of coverage desired. It is normally based on a "trip" basis of one day to 180 days. The approximate cost: \$1.50 for \$5000 to \$3.90 for \$50,000 for one day; \$18.90 for \$5000 to \$146.50 for \$50,000 for 180 days. Policies are also written on a yearly basis. The cost—about \$21.25 per year for \$25,000, \$42.50 per year for \$50,000.

These policies cover you while you are a passenger in or on, *but not while you are an operator or a crew member of*, a public conveyance (land, water or air) provided by a common carrier for passenger service, including MATS.

Commanding officers holding jurisdiction over the departure of Department of Defense aircraft carrying passengers are authorized by Art. C-1112 of *BuPers Manual* to make aviation trip insurance available for passengers. *All MATS terminals and commercial airports have such facilities for aviation trip insurance.*

You can also purchase coverage for personal accident only, while

flying as a passenger in any type of civilian or military aircraft. This includes both administrative and/or proficiency non-scheduled flights. Minimum amount in which this coverage is generally issued is \$10,000, and the maximum \$25,000 on any one person.

Approximate rates are: Death only, \$1.00 per \$1000; death and dismemberment, including permanent total disablement, \$1.25 per \$1000. Policies are normally written for a term of 31 days, but can be written for as much as a year.

For specific information on insurance for air passengers, see your insurance officer. Information is also available from agents of commercial insurance companies.

• **AUGUST EXAMS** — The next Navy-wide examinations for advancement in rating to pay grades E-4, E-5, E-6, E-8, and E-9 will be conducted in accordance with the following schedule:

Senior and Master Chief Petty Officer (E-8/E-9)—Tuesday, 2 Aug 1960.

Petty Officer First Class (E-6)—Thursday, 4 Aug 1960.

Petty Officer Second Class (E-5)—Tuesday, 9 Aug 1960.

Petty Officer Third Class (E-4)—Thursday, 11 Aug 1960.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current *Alnavs* and *NavActs* as well as current *BuPers Instructions*, *BuPers Notices*, and *SecNav Instructions* that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since *BuPers Notices* are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult *Alnavs*, *NavActs*, *Instructions* and *Notices* for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; *NavActs* apply to all Navy commands; *BuPers Instructions* and *Notices* apply to all ships and stations.

Alnavs

No. 6—Invited command attention to the insufficient number of nominations for the LDO program.

Instructions

No. 1120.21A—Announces an annual program and outlines the eligibility requirements and method of application for appointment of USN special duty officers (legal) 1620.

No. 1301.35 — Announces tour lengths and assignment rotation policies concerning aviation officers of the 13XX and aviation LDO categories.

No. 1811.1B — Discusses nondisability retirement of USN officers, warrant officers and enlisted personnel.

Notices

No. 1120 (30 March) — Announced the selection of personnel for training leading to appointment of ensign in USN line and staff.

No. 1520 (30 March)—Invited applications from Supply Corps officers for assignment in 1961 to the Freight Transportation and Traffic Management Course, Oakland, Calif.

No. 1440 (31 March) — Announced changes in the enlisted rating structure.

No. 1510 (4 April)—Announced the establishment of a Guided Missileman Class B School at Pomona, Calif.

No. 1430 (8 April)—Announced advancements to chief petty officer.

No. 1520 (14 April)—Announced selection of applicants for post-graduate instruction commencing fiscal year 1960-61.

No. 1510 (15 April)—Listed the names of active duty enlisted personnel selected for the Navy Enlisted Scientific Education Program.

References and Directives on Enlisted Advancement

Bureau of Naval Personnel Manual (1959), Articles C-7201 through C-7215.

Manual of Qualifications for Advancement in Rating (NavPers 18068, Revised).

Training Publications for Advancement in Rating (NavPers 10052—current edition).

List of Training Manuals and Correspondence Courses (NavPers 10061—current edition).

BuPers Inst. 5570.1A (Subj: Safeguarding unclassified personnel test materials).

BuPers Inst. P1430.7D (Subj: Advancement in Rating of Enlisted Personnel on Active Duty).

CURRENT DIRECTIVES WHICH AFFECT INDIVIDUAL RATINGS

BuPers Inst. 1223.1 (Subj: Selective Emergency Service Rates Program—through Change 6).

BuPers Inst. 1440.5C (Subj: Changes in Rate and Rating—through Change 1).

BuPers Inst. 1440.10B (Subj: Aviation Electronicsman Rating; disestablishment of).

BuPers Inst. 1440.18B (Subj: Program for Adjustment of the Enlisted Rating Structure through Formal School Training and/or In-Service Training—through Change 2).

BuPers Inst. 1440.20 (Subj: Change in Rating of Personnel in the Teleman Rating to Radioman or Yeoman).

BuPers Notice 1440 of 31 March 1960 (Subj: Changes in the enlisted rating structure).

THE BULLETIN BOARD

If It's Your Move, Follow These Suggestions of the Experts

MOVING day is a recurring crisis in every married Navyman's life. It can be difficult or it can be well-ordered and relatively simple.

To help make these moves as easy as possible, BuSanda has prepared a booklet titled, "It's Your Move." Here's the advice it offers.

After you receive your transfer orders, contact your nearest household goods shipping office. They will explain how much you may ship or store, and give you detailed information which will help with your individual problems.

It is best to visit the shipping office. If you can't do this, write or phone the nearest office and you will be sent the necessary forms and information. To avoid confusion, give the shipping activity a realistic date and time to pack and pick up your household goods.

What to Do with Your Orders

Take with you four copies of your orders (one of which must be certified) for each shipment. For example; if a part of your household goods will be sent by express, a part by other means of transportation, and the remainder to non-temporary storage, a total of 12 copies (including three certified copies) will be needed.

An interviewer at the household goods shipping office will fill out an Application for Transportation of Household Goods—also referred to as Standard Form 116—based on the information you give. Be prepared to tell the interviewer what you want shipped, when and where. Be sure this information is correctly shown on the form before you sign—do not sign it otherwise. An error here can cost you money and delay your shipment.

Because you may not always be able to make personal arrangements, your wife, or other agent, is empowered to act for you, if this person has your written authority. You may use either a simple letter signed by you or a formal power of attorney. Remember, shipping rights belong only to you, the Navy member.

All-Navy Cartoon Contest
H. L. Funston, BT2, USN



"Like, man, you're on report. You dig?"

Weight Allowance

Household goods may be shipped by members who are petty officers, third class (with over four years' service) and above. Here are the non-packed weight allowances.

Rate or Rank	Temporary Duty	Permanent Duty
Admiral	2000	24,000*
Vice Admiral	1500	18,000*
Rear Admiral (upper half)	1000	14,500*
Rear Admiral (lower half)	1000	12,000*
Captain	800	11,000
Commander	800	10,000
LCDR and Warrant Officer (W-4)	800	9500
LT and Warrant Officer (W-3)	600	8500
LTJG and Warrant Officer (W-2)	600	7500
Ensign and Warrant Officer (W-1)	600	7000
Master Chief Petty Officer	600	7000
Senior Chief Petty Officer	500	6500
Chief Petty Officer	400	6000
Petty Officer, First Class	400	5500
Petty Officer, Second Class	400	5000
Petty Officer, Third Class (with four years' service)	400	4500
Aviation Cadet	400	400

* Currently limited to 11,000 pounds by appropriation act rider.

The Navy will pay only up to these authorized weight allowances. Where moves weigh more than authorized allowances, the excess is charged to you. Check carefully and dispose of all articles worn out or no longer needed.

What Not to Ship

You should not ship broken furniture; old, no longer needed clothing; old books, papers, magazines; appliances that no longer work; broken toys; or anything else no longer needed.

In addition, the government will not ship: Plants; wines and liquors; pets; trailers of any kind; boats (including outboard motors); motor vehicles (except overseas); explosives, flares and ammunition; inflammables, matches, cleaning and lighter fluid, photo flash bulbs, and fireworks; items intended for resale or for persons not in your immediate family, or articles bought after effective date of your orders except articles purchased in U. S. for overseas shipment (when approved).

Books, Papers and Valuables

For articles of extraordinary value which include silver, money, stocks, bonds, jewelry and the like, you may use express for your protection. (Be sure to discuss the insurance aspect and overseas handling of these articles with the interviewer at the household goods shipping office.)

Professional books, equipment and papers; if they're needed in the performance of your duties, may be shipped without being charged against your authorized weight allowance. Be sure the estimated weight is shown on your application for transportation of household goods. Before the packers arrive at your house, set these items apart from your other goods. When the packers arrive be sure they pack, mark and weigh them separately.

What About HHE?

If you are moving into furnished government quarters, be sure to find out exactly what furniture and appliances will be provided before you ship your household goods. Items

not needed at your next duty station can usually be placed in storage at Navy expense. Give careful attention to this matter and you will save wear and tear on your furniture and save taxpayers' dollars.

If you're going overseas, general information on housing conditions can generally be obtained from the household goods shipping activity. Such information may also be included in your orders. The best source, however, is the commanding officer or his representative at your next duty station.

You may ship your household effects as soon as you receive your orders. Your interviewer will advise and assist you. Before you talk with the interviewer, it would help to know about the quarters situation at your new duty point, the climate, electrical current and other pertinent local information.

How your household goods are shipped depends on when you need your goods at your new station. If your household goods are to be shipped uncrated, you are permitted to state a preference of the carrier that will handle your shipment. Although the transportation officer (acting in the capacity as the contracting officer and as an agent of the government) must have the final say in selecting the carrier, your preferences will be given every possible consideration.

"Date Delivery Desired"

The best available transportation will be used to get your goods to their destination when you need them. Be sure to give the interviewer a realistic "DDD"—Date Delivery Desired. It is just as bad to have them arrive too early as too late. It means extra handling in and out of a storage location, and this is the sort of thing which ages your furniture before its time.

You may ship up to 500 pounds net weight by express. Remember this 500 pounds is part of your total weight allowance and only essential articles required for immediate use should be shipped this way.

Packing and Moving Services

When you're ready to move, the following services will be provided by the commercial carrier: Crating, packing, inventorying, appliance servicing, pickup from residence, shipping, storage, delivery to resi-

dence, unpacking, uncrating and removal of trash and debris after packing or unpacking.

The movers must pack your goods according to specific standards. You can help by checking on the mover. The mover must: Use new or used boxes and cartons in good condition; tag or mark each container or loose item with the item number shown on the inventory list; pack large mirrors, glass tops, large glass-faced pictures, etc., in a crate or reinforced carton and lace mattresses in cartons.

When your goods are unpacked, the mover must: Place your goods in any room you want them; check off against the inventory all items delivered; unpack all items from containers; and record all loss or damage found while unpacking. If any prob-

lems or questions arise, don't argue with the mover. Call the nearest household goods shipping office.

Inventory of Your HHE

As your goods are packed, the mover will make an inventory of furniture, boxes and barrels, and give you a signed, legible copy as a receipt.

The inventory must reflect the true condition of your property. General terms such as "marred," "scratched," "soiled," "worn," "gouged," and the like should not be used unless the specific location of the damage and extent of the defect is also indicated. For example "right-front leg, chipped," "three-inch scratch in center of table top," "two-inch tear in covering of left arm." We repeat, call the nearest household goods shipping office in case of disagreements. Sign the inventory only after disagreements are resolved.

Make sure the number of boxes, barrels, crates, etc., furnished by the mover agrees with the number he lists on the Statement of Accessorial Services Performed (DD 619), which he will also ask you to sign. Do not sign for more than he has actually used in packing your household goods.

Before the Movers Come

Before the packers arrive, you are responsible for removing and dismantling television antenna; defrosting, cleaning and emptying the refrigerator and deep freeze unit; disconnecting appliances (including necessary plumbing, electrical and carpenter service).

The government will prepare appliances so that they will safely withstand handling, movement and storage; reversing the procedure at destination. This does not include connecting or disconnecting services. (You should be prepared to furnish the household goods interviewer with a list of appliance by manufacturer, year and type of model.)

You can arrange for delivery of your goods merely by calling the household goods shipping office nearest your new station when you get there. If your goods have not arrived, this office will follow up on your shipment for you.

Moving Company's Responsibility

The company which moves your goods is responsible only at the per-

NOW HERE'S THIS

Up the Hard Way, Fast

Some Navymen may have a tough time making a rate, but John B. Lipinski, of FASRON 12, NAS, Miramar, Calif., is certainly not one of them. He made it the hard way, but fast.

Lipinski, who just turned 26 this May, has been a chief aviation electrician since the ripe old age of 24. He joined the Navy in May 1951, a few days after his 17th birthday, and was an AE1 when he was only 20. He put on the hard hat in July 1958—just seven years, one month and 25 days after he'd enlisted.

Although others may have made chief in less time or at younger ages, Lipinski's climb has still been remarkably rapid, considering the time-in-rate requirements he had to meet while on his way up.

And, to top things off, Lipinski has not been content with "merely" making CPO. He is now drawing pro pay.



pound rate stated in his contract. Generally, this amounts to 30 cents a pound for each article in motor van and freight forwarded shipments; to 10 cents a pound in the case of rail or motor freight, and up to 50 cents a pound for express.

Here's how it works. Your chair which was shipped by motor van weighs 10 pounds. Suppose it is damaged to the extent that it cost \$10.00 to repair it. Since the moving company contract calls for him to pay only 30 cents a pound, the maximum he is required to allow for repairs to the chair is \$3.00.

Government Protection Against Loss

The government, however, provides additional protection against loss. If the current value of your property does not exceed \$6500, you are, in effect, 100 per cent covered with free government protection against loss and damage. If the value of your property is over \$6500 and you want to buy additional protection, be careful to find out exactly what type of coverage your intended policy provides. It is well to note that a transit-type policy usually expires when your goods are delivered into storage.

How Much Insurance?

If the amount of insurance you buy is not equal to the amount you state your goods are worth, the insurance company will not pay you for the full value of any item lost or damaged. Reimbursement will be based on the ratio of the declared value to the amount of insurance purchased. For example, if you state your goods are worth \$8000 and only take out \$4000 worth of insurance, and an item worth \$100 is lost, the insurance company will only pay you \$50.

You cannot use the \$6500 government protection in combination with commercial insurance to get over \$6500 total coverage. In other words for 100 per cent coverage if your goods are worth \$8000 you must buy a full \$8000 commercial insurance policy.

Household Goods Shipping Officer

Your best friend in case of trouble is the household goods shipping officer. Get in touch with him promptly. He will provide you with the proper forms, a written instruction pamphlet, advice, and whenever possible, an inspector to check the damage.

All-Navy Cartoon Contest

J. R. Branum, CS2, USN



"Let's take him through the galley and scare the life out of the cooks!"

A claim may be filed against the government, the carrier and/or your insurance company at the same time. However, this may prove unnecessary if the carrier repairs or replaces the damaged item, or pays you. If you discover damage or loss at the time of delivery, note the facts on the bill of lading and inventory which the delivering agent will ask you to sign.

Do not refuse to sign the government bill of lading because goods are received in a damaged condition or when a portion of the shipment is missing. But, before you sign the bill of lading, be sure to make a notation on the reverse side indicating the type and extent of loss or damage. If damage or loss is discovered after delivery, be sure to notify the delivering moving company immediately and give them a chance to inspect the damaged articles.

At the time of your interview at the household goods shipping office, "An Evaluation of Household Goods Service Report" (NavSandA Form 1100) with a self-addressed return envelope will be given to you. Be sure to complete this form and mail it after your goods are delivered. Your reports and other data are entered into a "Carrier Performance Record" which is used to assist the Navy in getting only the best movers to serve you.

Shipping Your Automobile

If you are a petty officer third

class (with over four years' service) or above, and have permanent change of station orders from or to overseas, you may ship your automobile to an overseas port, from an overseas port or between overseas ports. Land transportation to or from a port is not authorized. You or your designated agent must deliver your automobile to the port shipping authority who serves your new duty station. If delivery is made by your agent, be sure he has your written authority to do so.

Because overseas regulations and prohibitions vary on entry restrictions, licensing requirements, resale laws, and special equipment requirements, it is best to check on the latest information by writing your overseas commander as soon as possible after you know where you will be going.

If you plan to ship a car, you must submit a request for shipment on a form (DD form 828) which will be provided by your household goods shipping officer. Two certified copies of your orders must accompany this form to the port shipping activity which will be shipping your car. Your household goods shipping office will assist you in selecting the port shipping activity which will best meet your needs.

Early submission of the request for shipment of your automobile will assist in moving it as soon as possible after it reaches the port shipping activity. As soon as the port activity receives your application, it will send you delivery instructions.

Is Your Car Ready for Travel?

Before you deliver your automobile to the port of embarkation, you should make sure that: It is in good mechanical condition; a complete set of keys is turned in to the port shipping activity along with the vehicle; the motor is protected with anti-freeze, where necessary; its battery is fully charged; as little gasoline is in your tank as possible; and only essential tools, accessories, and spare parts are left inside. When you do deliver your car, the Port shipping activity will inspect your vehicle, note its condition in your presence, drain the gasoline tank, disconnect the battery, and load it aboard ship.

The government will ship only one vehicle for you. In general this includes passenger-carrying jeeps,

automobiles, motorcycles, motor scooters and motor bikes. Trailers, vehicles to be used for commercial purposes, airplanes, or boats cannot be shipped for individuals.

You should furnish the destination port your overseas address as soon as possible so they can notify you when your vehicle arrives.

Any damage that occurred between the time you turned the car over to the port shipping activity and the time you receive the car at port receiving activity should be reported. Assistance in claims for damage is offered by the port activity or shipping office.

Shipment of Pets

Pets are not considered part of your household goods. Information on shipment of pets can be furnished by the cognizant Navy passenger transportation office.

How Much Clothing?

If you're going overseas, most of your clothing can go with you. Generally, ships restrict cabin luggage to hand baggage needed for the voyage. You are authorized additional "hold baggage," however, which will accompany you on the same ship on which you travel. If shipment to or from the port is arranged by a household goods shipping office it will count against your household goods weight allowance.

Trailer Allowance

If you have a house trailer, you can be paid to move it within the United States (except Hawaii and Alaska). If you pull it yourself, you will receive an allowance of \$.11 a mile. If you hire someone to do it for you, the expense will be covered at the rate of \$.20 a mile. Generally, you cannot make a shipment of household goods and receive a trailer allowance on the same set of orders. For further limitations and facts on how and when you get your money, see your disbursing officer. Briefly, this type of payment is based on a permanent change of station orders, a trailer move by a third class petty officer (with over four years' service) or above, and no dislocation allowance.

The location of your nearest household goods shipping office can be obtained from your supply office. With the help of that office and the above suggestions, you should have a pleasant move.

WAY BACK WHEN

Salvaging a Sub, Overland

When the submarine USS H-3 ran aground back in 1916, she presented a completely different type of problem from that which usually confronts submarine salvagers. It wasn't a case of getting her up out of deep water, but rather of finding a way to get her back into water deep enough.

H-3's adventures began on the morning of 14 December. She was operating off the northern California coast near the town of Eureka, in company with the cruiser USS Milwaukee and tender Cheyenne.

Fog in that area, especially in the winter months, is extremely heavy. Weeks of stormy weather had produced abnormal tide conditions. It was that fog, and those high tides, which proved to be H-3's undoing. In maneuvering she ran solidly aground on the Samoa Beach section of Humboldt Bar, a three-mile wide strip of sand that separates Humboldt Bay from the Pacific Ocean.

The crew of H-3 was rescued by means of breeches buoys rigged by Coast Guardsmen from a life saving station at Eureka.

Lack of proper equipment prompted the Navy to turn the problem of salvage over to a commercial company.

Between the time of grounding and the onset of salvage operations, H-3 had shifted north on the beach some 300 feet, and had settled about six feet deeper into the sand.

At low tide the water rested about 75 feet from the stranded submarine, while at high tide it came up on the beach more than 250 feet beyond it. Salvagers were able to work only when the tide was out, and were further hampered by quicksand.

The presence of quicksand made it impossible to excavate around or under H-3, or to pump water out of such an excavation. Such tactics would only cause the submarine to settle deeper into the sand. Yet, in order to lift her out of the sand, it was necessary to pass heavy steel cables completely beneath and around her.

Salvagers overcame this difficulty by setting up a force pump on the beach, with two lines of two-inch hose attached. To the end of the hose two long joints of pipe were fastened, and a small cable was attached to the end of the pipe. The pipe was placed in the same position it was desired to put a cable, and at such an angle that when the pump was turned on, and water forced into the pipe, it worked itself down and under the submarine's keel. By repeating this process from both sides, the salvagers were eventually able to work one end of a cable far enough through so that it could be grasped by a

hooked pole from the opposite side and drawn through underneath the submarine. Seven cables were placed around H-3.

Next, heavy timber pilings and cribwork were built on either side of H-3, and the cables were attached to screw jacks and rigged on the pilings. Once jacked clear of the sand, H-3 was lowered into a cradle of cables strung between two big logs.

A critical point in the salvaging operations occurred at the time when the submarine was lowered onto rollers for hauling her up sideways on the beach. While this was being done she was exposed to the tide, and since the tide remained down only about two-and-a-half hours, any delay would have made it impossible to protect her, and she would have settled deeper into the sand. Operations proceeded without a hitch, however, and before the tide returned, H-3 had been moved more than 150 feet up the beach.

Once the submarine was safely above the high water mark, pine logs, 80 feet long and more than 40 inches in diameter, were placed on each side. Cables were strung around those logs. Under them at each end, bobbars—made of four pieces of 14x14-inch timbers 20 feet long—were solidly bolted together. All the weight bearing on the bobbars was carried at the center, allowing them to equalize when the grade changed. The bottoms of the timbers were shod with maple.

For the trip across the sand to Humboldt Bay a makeshift railway consisting of three pieces of 6x16-inch pine was laid, and the submarine was moved on rollers, each four feet long, spaced four inches apart under the bobbars.

Power was furnished by a hoisting engine operating through a pair of five-sheave blocks.



Armed Forces Staff College Has Tri-Service Training Program

THE ARMED FORCES STAFF COLLEGE, one of our nation's three joint colleges, is the only U. S. high level military institution with a specific mission of preparing selected officers of all military services for duty with joint and combined staffs.

Approved by the Joint Chiefs of Staff in August 1946, the Armed Forces Staff College was set up to provide a tri-service educational system which would help remove the joint operational difficulties which were encountered during World War II and to fill the void in the joint educational system of the United States armed forces.

The directive establishing the college provided that the school would be under the jurisdiction of the Joint Chiefs of Staff, with responsibility for operations and maintenance assigned to the Chief of Naval Operations. The site selected for the college was a former U. S. Naval Receiving Station in Norfolk, Virginia.

Within six months the school was organized, a curriculum was developed, and the first class began its studies (in February 1947). With graduation this July of the 27th class, total college graduates will number 5,172.

This is the college's mission, as prescribed by the Joint Chiefs of Staff: "To educate selected officers in joint and combined organization, planning, and operations, and in related aspects of national and international security in order to prepare them for duty in all echelons of joint and combined commands."

While the course of study centers around joint and combined operational planning, the curriculum also provides instruction in strategic considerations in the fields of geopolitics, economics, and sociology. Hence, the students gain an understanding not only of a complete joint military operation from the planning phase through execution, but also of

the non-military aspects of such operations.

Two five-and-one-half month courses are presented each year; the first beginning in February and the second in August. Approximately 210 students, with equal representation from each of the armed services, now attend each class. In addition to U. S. officers of all the armed services, French, Australian, British, Canadian, and New Zealand officers are admitted as allied observers. The Department of State, Central Intelligence Agency, National Security Agency, and the U. S. Information Agency also send representatives as regular students.

The program of instruction is divided broadly into four phases. Phase I, the introduction phase, explains the course objectives, methods of instruction and the scope of instruction. Phase II, the armed forces orientation, provides sufficient information about each of the services for the subsequent understanding of joint planning and procedures. Phase III, joint and combined organization, planning, and operations, provides the students with detailed instruction in approved joint doctrine and its application and encourages originality in solving joint problems where approved doctrine is lacking or is inadequate.

The final phase of the curriculum, national and international security considerations, is planned to broaden the student's perspective by focusing attention on the major political, economic, sociological, and geographic implications that affect military planning.

The instruction program is built around morning lectures and afternoon seminars. Faculty and guest lectures cover appropriate military and non-military organizations and operation in all areas of the world. The college has many civilian as well as military guest speakers. Following each lecture, students question the guest speakers to develop additional information and background material.

At the Staff College the seminar plan is used extensively. Divided into study groups of 15 officers, each group having equal service mem-

WHAT'S IN A NAME

National War College

You would normally think the school days for Navy captains or Marine, Army and Air Force colonels are over. This is not so for a select few of them. Some of these potential admirals and generals may be selected to attend a 10-month course at the National War College, Washington, D. C.

Graduates of this war college (which includes some civilians) are usually placed in some high level policy and national strategy-planning job. One of the purposes of the school is to promote better understanding between the armed services, and between the services and policy-making bodies in other branches of government.

Currently, 132 students are admitted to the school each year. Each military service sends 34 officers; the Department of State, 18; Office, Secretary of Defense, four; Central Intelligence Agency and U. S. Information Office, three each, and the Commerce Department and National Security Agency, one each.

During the academic year the students attend lectures by top university educators as well as government officials who speak off the record about current trends and national policy.

The college, under the control of the Joint Chiefs of Staff, was established on 1 Jul 1946 at Fort Lesley J. McNair in Washington. Since then, it has graduated some 1700 students.

The National War College has a commandant, whose job is rotated between the three services, and three deputies who represent the armed services and the Foreign Service. The permanent faculty is made up of military officers and civilian educators from leading universities and colleges, as well as experts in selected fields.



bership, students cover the initial phase of instruction and are then shifted into other groups for each succeeding instructional unit. This day-to-day exchange of ideas and experiences among officers of all three services is extremely profitable to all concerned and is a unique feature of joint education.

Field trips supplement classroom work. Utilizing service facilities in the Norfolk area, trips are made on board Navy submarines and aircraft carriers. Tours through guided missile cruisers and destroyers are also conducted. During these trips, the class will normally visit such installations as the U. S. Army Infantry Center, Fort Benning, Georgia; Headquarters of the Strategic Air Command, Offutt Air Force Base, Omaha, Nebraska; the Marine Corps Base at Camp Lejeune, North Carolina, and the Langley Research Center of the National Aeronautical Agency at Langley Air Force Base, Virginia.

The college performs a vital role in strengthening unification of the armed services. The effectiveness of its contribution is indicated by the demand for its graduates in top level joint and combined staffs. In its 13 years of operation, 26 classes have graduated from the college. The performance of these graduates has provided convincing evidence of the college philosophy of improving mutual understanding among the military services and of achieving effective unification.

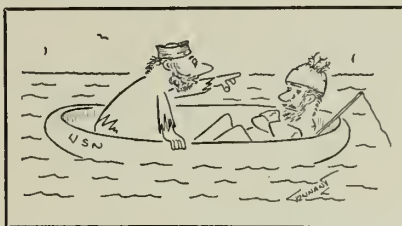
Candidates Selected for Navy's Scientific Education Program

The names of 235 career-minded Navy enlisted personnel who were provisionally selected for entrance into the Navy Enlisted Scientific Education Program (NESEP) for 1960 have been announced.

These selections were made by the NESEP Selection Board and were based on test scores, the recommendations of their commanding officers, and their over-all performance as reflected in enlisted records.

Those selected will be ordered to report in June to the Naval Preparatory School, Bainbridge, Md., or to the Service School Command, San Diego, Calif., for approximately nine weeks of temporary duty under instruction. Assignment will be made

All-Navy Cartoon Contest T. H. Tennant, YNC, USN



"I see land. . . . I tell you it's land! I can see a white sandy beach extending to rows of cool swaying palms."

during this period to the 22 colleges participating in the program. Successful completion of the prescribed curricula and of officer candidate schooling at Newport, R. I., will result in appointment to commissioned rank in the Regular Navy.

It is anticipated that another NESEP examination will be conducted in November 1960 for entrance into the NESEP in 1961.

Navy Presentation Available On 'Conquest of Inner Space'

The science of modern oceanography dates back almost a century. Yet, how much is really known about what lies beneath the surface of the oceans that cover three-fourths of the earth's surface?

The Navy's newest 35-mm color slide presentation, "The Conquest of Inner Space," points out some startling and interesting facts. For example—someone has claimed that there is enough gold in the sea to make every inhabitant of the world a millionaire.

The general undersea topography is not unlike that of the earth above the sea. Lofty mountain ranges, plains, plateaus or sea mounts, and deep canyons—all lie hidden beneath 324 million cubic miles of water. To date, less than one per cent of the deep sea floor has been mapped with any degree of reliability.

The Navy has long pioneered in the study of oceanography and today is supporting, in whole or in part, some of the more advanced programs of scientific efforts.

More is expected to be learned about the oceans through Project MOHO. In this project, a hole will

be drilled through the earth's crust from a deep spot in the sea. It is hoped that the samples taken of the materials below the ocean floor may shed light on the first appearance of life in the oceans and perhaps on the origin of the oceans themselves. The Navy's bathyscaph *Trieste* recently descended a record depth of 35,800 feet, almost 7 miles down into the ocean.

"The Conquest of Inner Space" is an interesting and informative presentation. In addition, there are two new presentations—"Your Navy and Your Future" and "The Navy in Space" which cover other phases of seapower, a vital link in the chain of national defense.

To schedule a showing of any of these presentations, contact your nearest Naval Station, Naval Reserve Training Center or Naval District Headquarters.

HMS Victory Sails Again, This Time for U. S. Navy

There's an HMS *Victory* in the U. S. Navy.

A two-ton model of Lord Nelson's famous flagship, this version of *Victory* was built in Hollywood for a movie. It was presented to the Naval Training Center at San Diego, Calif., in 1941. Until this spring, when it was moved to the new Naval Training Center Museum, it was displayed in the South Armory.

Moving San Diego's *Victory* to her new berth took the combined efforts of six Navymen and a crew from Public Works. The Navymen dismantled the sails, rigging and masts at the old location and set them up again at the new one. The Public Works crew operated the two fork lifts, a crane and a flat bed truck.

Victory is no ordinary mantelpiece model. She has a 25-foot over-all length, a four-and-one-half-foot beam and masts 20 feet tall from keel to truck. Built in three months at a cost of \$5600, the exact-scale replica is completely seaworthy.

Her 110 guns are wired with electric detonating caps. During the filming of the motion picture they were actually fired.

Here's Latest Report on Living Conditions in Atsugi, Japan

SOME YEARS AGO, the Navy used the recruiting slogan: "Join the Navy and see the world." This is still true today but, in addition, it's possible for your entire immediate family to see the world with you. It can be a pleasant experience for you and your wife, and a wonderful education for the youngsters. Consider, for example, what the local command has to say about Atsugi, Japan.

Situated about 36 miles southwest of Tokyo, Atsugi is located in the Kanto Plains region of Honshu, the main island of Japan. Its mission is twofold. It provides facilities to support regular operations of Fleet reconnaissance, antisubmarine, air transport, carrier and Marine tactical support aircraft. Secondly, it provides storage, maintenance and assembly of naval aviation ordnance.

Heading the air units that support the naval Fleet airmen in Far Eastern waters is Fleet Air Western Pacific based at Atsugi. This command coordinates logistic support for all Air Force Pacific Fleet ships and units in the Western Pacific.

The Atsugi Detachment of Fleet Tactical Support Squadron 21 (VR-21) provides air logistic support to naval forces in the Far East.

Fleet Aircraft Service Squadron

11 (FASRON-11) furnishes maintenance and repair services of all kinds to aircraft squadrons and units. This squadron repairs thousands of aircraft of various types each year.

Utility Squadron 5 (VU-5) planes tow targets for aircraft gunnery exercises as well as for surface ship anti-aircraft practice.

Religious services are regularly conducted for both Catholic and Protestant faiths in the NAS Chapel. Atsugi has a complete staff of chaplains available for counseling and moral guidance.

Recreational facilities range from salt and fresh water fishing at nearby spots to a well stocked library and a well directed sports program.

Bowling, basketball, softball, tennis, golf, boxing and football are all popular. Atsugi has a modern 10-lane bowling alley, at 10 cents a line and a nine-hole miniature golf course has a greens fee of five cents for nine holes.

Movies are free and can be attended at any one of several locations. The NAS Theatre is centrally located adjacent to the Ship's Store and snack bar, and other movies can be viewed at the various clubs where they are also shown free of charge. The nearby town of Yamato has a theatre where American and foreign

movies are shown at an admission price of approximately 25 cents. Atsugi has a good enlisted men's club; it also has acey deucey rooms for first and second class petty officers; a CPO Club, and an adequate officer's club. Club entertainment includes game nights, happy hours, movies, dancing, food, drinks and outstanding floor shows featuring top Japanese, American and European entertainers. Sightseeing tours are also regularly scheduled by the Special Services department.

Transportation information—Eligibility requirements for concurrent travel of dependents of naval personnel ordered to shore-based activities in Japan, Fleet Air Units based ashore permanently and units home-ported in Japan are set forth in BuPers Inst. 4650.6C. The following applies to NAS Atsugi.

Officers of the rank of Captain and above—concurrent travel is authorized for immediate entry into government quarters.

Other officers—concurrent travel is authorized to enter approved private rental housing.

Enlisted—concurrent travel is authorized for those in pay grades E-7, E-6, E-5 and for those in E-4 with over four years' service, to enter approved private rentals.

Other enlisted—enlisted personnel in pay grade E-4 with less than 4 years' service and lower pay grades are not eligible for space-required or space-available travel.

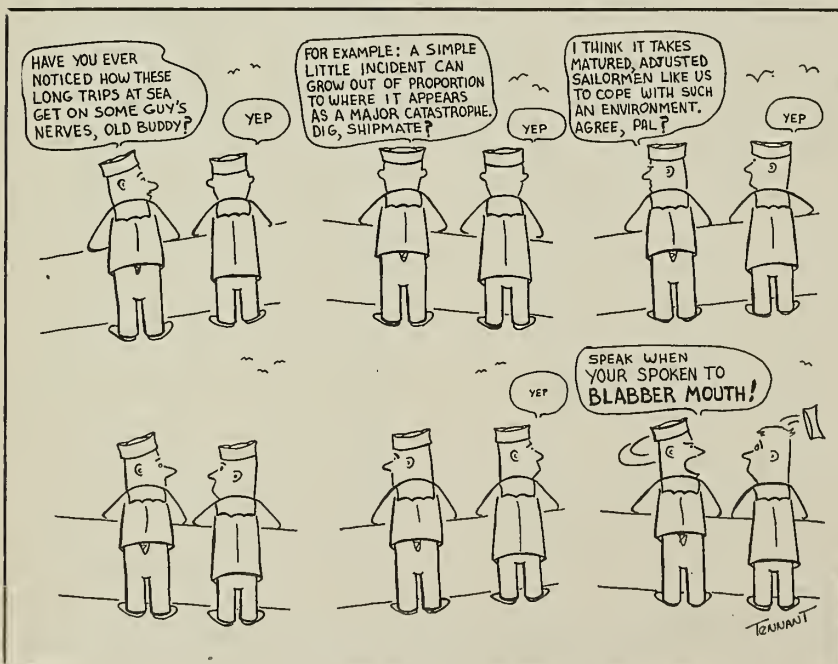
In considering concurrent travel with dependents to Japan, it is emphasized that:

Private rentals are expensive, and so are utilities, particularly electricity. Depending on the size of the house, heating by kerosene or butane may be difficult; loose construction of houses results in many of the larger ones being drafty. An average cost of \$25.00 can be expected during the winter months for heating. Remember also that the living standards may not be the same as you are used to in the U. S.

It is strongly recommended that you report to your duty station and personally view the situation before bringing your dependents out, particularly during winter months.

All-Navy Cartoon Contest

T. H. Tennant, YNC, USN



Application—Applications for concurrent travel of dependents should be submitted by message or letter to NAS Atsugi, information copies to Commandant 12th Naval District, COMNAVFORJAPAN and new duty station, and should include:

Relationship and ages of all dependents for whom travel is requested.

Statement that you understand private rental situation in area and accept full responsibility for your decision.

Statement showing whether hotel accommodations are firm.

Upon receipt, NAS Atsugi will process the application and appoint a sponsor/agent if you do not have such a person to help you.

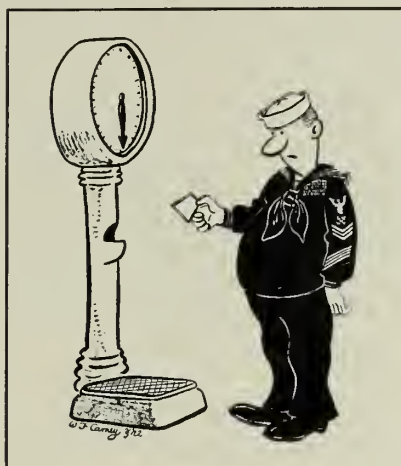
Upon obtaining the approval of NAS Atsugi, submit four copies of your application for dependents' transportation (DD 884) and three certified copies of orders to Com 12 and advise the new duty station of ETA Japan.

Notify promptly the Commandant, 12th Naval District, Fort Mason, San Francisco, Calif., when you have complied with the passport, immunization, and health requirements. Assignment of space on a ship will not be made until this notification has been received.

After the Commandant, 12th Naval District, has been advised that you are ready to depart on or after a certain date, you will be booked on the first available ship sailing after that date. You will be notified that space is offered you on a certain ship departing from San Francisco or Seattle. You will be given a time limit in which to wire your acceptance of this offer. Your reply should be sent to San Francisco.

If you are legally entitled to transportation, at government expense, from your home to the port of embarkation, government transportation requests to cover your rail and Pullman fare will be sent to you upon request. If you wish, you may perform the overland part of your journey at your own expense, and claim reimbursement after your arrival at your final destination. If you prefer to travel at your own expense, you must notify the activity arranging your travel so that the transportation requests will not be

All-Navy Cartoon Contest
W. F. Carney, YN2, USN



"You are going on a long ocean voyage."

issued and forwarded to you. Reimbursement will be at the rate of six cents per mile for persons 12 years and over, and three cents per mile for children five to 12 years. No reimbursement will be made for children under five years of age.

Specific instructions will be given as to when and where you should report for embarkation. You should not leave home and proceed to the port of embarkation in advance of receipt of notice to report. Hotel accommodations are difficult to obtain at all principal ports.

Air travel may be authorized under certain conditions, usually where small infants are involved, and in certain pregnancy cases.

Passports—Dependents must obtain passports before travel; however, do not apply for a passport until notified. This notification will be a DD Form 1056 from the District Passenger Transportation Officer, San Francisco, Calif. The notice of authorization for dependents overseas travel will be received in sufficient time to complete all necessary arrangements.

Immunization—The following immunizations are required for the Far East area: Cholera, typhus, typhoid, tetanus, small pox and poliomyelitis.

Orders—You should furnish your wife with 50-70 certified copies of your orders. These copies are used for shipments of household effects and car and by other processing units for physical examinations,

transportation for pets, and similar routines.

COMNAVFORJAPAN Inst. 4600.2C sets forth the requirements which control the entry of pets (cats and dogs) into Japan.

Government Housing—There are a limited number of new public quarters on the station. Personnel at Atsugi are also housed in government quarters located in Yokohama. The Yokohama housing is quite comfortable, with large lawns and adequate playing areas for children. Schools are located near the Yokohama housing areas as are the commissary and post exchange. The Atsugi Navy Housing is at some disadvantage in this respect—10 miles to the nearest commissary and school.

Furniture and household equipment are furnished by the housing authorities.

Private Rentals—Most people at Atsugi live in private rentals within 10 minutes of the station in the towns of Tsuruma or Minami-Rinkan. Others live on a hill overlooking the base, called Atsugi Heights. There are approximately 200 families living in these areas. The scarcity of these rentals varies over periods of time, particularly for large three- or four-bedroom homes.

The houses are of Japanese construction, but of western design and are generally small with many windows and sliding doors. Though comfortable during the summer, the homes are cold during the winter season. The rent is usually around \$45 to \$110 with cost of utilities ranging from \$12 to as high as \$75 in the winter.

The houses are inspected by Army medical and engineer personnel as to sanitary and safety conditions. Furniture and household effects in most cases are provided with the exception of space heaters. They are in short supply in the winter season.

Steam heat is provided for government quarters.

At the present time, the U. S. Army issues furniture to families living in approved private rental. Owing to the high humidity of the area, it is recommended that you do not bring any furniture not actually needed. At present the Army is issuing dishes, utensils and bed linens.

You are advised to bring with you electric fans, tight canisters, heating stoves (kerosene or gas type), radios, television sets, refrigerators, washing machines, vacuum cleaners, and encyclopedias (especially for high school students living in private rental who have no easy access to the Camp Zama, Sagami-hara, Yokohama or Atsugi libraries).

Because the electric current is different from that in the U. S. (110 volts, 50 cycle in Japan) electric stoves and electric heaters are not practical. Cost of electricity in Japan is very high; the more used, the higher the rate.

Fruits and Vegetables—Purchases of local fresh fruits and vegetables should be limited to those items which are certified as having been grown under chemical fertilization. Such a certificate does not insure that the produce is free of parasitic and bacteriological contamination since laboratory examination has revealed the occasional presence of the eggs of whipworms and tapeworms. However, such produce, when properly prepared, is safe for human consumption.

Money—It is a court-martial offense to possess U. S. currency longer than 24 hours after arrival in the Far East. Do not become involved in any transaction with Japanese nationals except when yen are used. Money orders over 25 dollars must be verified by your division officer. Stick to these rules and you will not get in trouble over money exchange. One dollar equals 360 yen.

Hotels and Restaurants—Enough Japanese and semi-Western type hotels are available to meet almost every need in all locations other than in Atsugi. U. S. personnel including dependents are authorized to eat only at restaurants displaying "Grade A" signs. The corner hot dog, hamburger and drive-in stands are nonexistent.

Postal Service—To avoid unnecessary confusion or delay in the receipt of mail, it is recommended that correspondents be notified of your proper address in Japan before your departure from the States. For example: Mrs. Alfa B. See, c/o LCDR Alfa B. See, Navy No. 3835, Box No., c/o Fleet Post Office, San Francisco, Calif.

All-Navy Cartoon Contest
R. Varesi, AD3, USN



"It has a four-speed transmission; third, second, first and chief!"

All parcel post packages must be accompanied by a customs chit stating the nature of contents and value. These forms are available at the Post Office.

Dependent Schools—American-type educational facilities for children from nursery school through elementary school age comparable to the better American public schools are available.

Army and Navy bus transportation is provided for Atsugi area dependent children to the Yokohama High School. There is a full program of scholastic and recreational activities offered in a school accredited by the North Central Association.

Located in the center of the Sagami-hara Dependent Housing Area is the Sagami-hara Elementary School which provides a full curricular and extra-curricular program for pupils from the first grade through the eighth grade. The school sponsors an active program in organized activities.

A kindergarten provides educational training for approximately 135 children between the ages of five and six. It is a non-appropriated activity directed by a council made up of parents of kindergarten children with nominal tuition fee dependent upon pupil enrollment and operating expenses.

The nursery school is a non-appropriated activity operated on a non-profit basis which provides training for children in the preschool age group (three to five years).

There are Catholic parochial schools in the Yokohama area. Naval bus transportation is provided. Parochial schools are available for both grade and high schools. Grade school facilities are for both boys and girls; high school is for boys only.

Automobiles—It is advised that you bring your automobile. (Only one per family is allowed.)

When leaving your car for shipment, two certified copies of your orders and a completed DD 828 are required. Before shipment, you should remove hub caps, cigarette lighters, ashtrays and other detachable items. These, together with tools, should be boxed and placed in the trunk compartment of your car. It is advisable to cover your chromium with wax.

The Japanese government requires all privately owned vehicles to be equipped with either a mechanical or flashing-light turn indicator. Your wife should bring with her a valid current driver's license in order to qualify for a Japanese driver's permit.

Japanese road tax, license and inspection fees must be paid shortly after arrival of your car. The road tax is 9000 yen (\$25.00) per year. License and inspection fees total 800 yen (\$2.22).

Clothing—Almost all items of wearing apparel for dependents may be purchased at the Navy Ship's Store and Exchange. Western-style clothing sold by Japanese concerns is moderately priced. Because of the variable temperature, it is suggested that an adequate supply of different weights of clothing be brought along. A light gabardine raincoat, rubbers, sufficient shoes, nylons, and children's clothing are especially recommended. Ready made clothes are frequently difficult to obtain. Shortages frequently occur in various sizes.

The range of shoes sizes and styles is adequate but odd sizes and highly-styled shoes are difficult to obtain and require special ordering. Japanese tailors are relatively inexpensive and men's clothes can be tailored for reasonable prices. Tailoring for women is also available but occasional dissatisfaction is encountered about proper fitting. Service personnel, while in an off-duty status, may wear civilian clothes.

More Than Ten Thousand Advanced to CPO in This Year's Exam

IT'S ALL OVER except the shouting—and there should be quite a bit this year. The results of the CPO examinations administered in February 1960 reveal that the Navy has authorized the largest number of peace-time advancements in its history.

This year 10,441 E-6s were selected to don the hard hat. The first 2500 of these were advanced on 16 May, while the remainder will be rated on 16 July, 16 September, 16 November and 16 January.

Many ratings which have been extremely tight—were wide open this year. For the first time in 15 years—since the end of World War II—all ADs, BMs and HMs who passed the test were promoted. In addition, all the personnel in 25 other ratings who passed the exams were also advanced.

Over-all statistics for this year's examinations reveal that 76 per cent

All-Navy Cartoon Contest
C. Wise, HM1, USN



"I keep putting off buying more uniforms hoping I'll make chief first."

of those who passed the Navy-wide E-7 exam were rated. Of the 13,821 who passed, only 3380 were not rated. A pretty good record.

Last year 14,536 passed the CPO

examinations and only 4986 were rated.

Letters were forwarded by the Chief of Naval Personnel to all commands on 31 Mar 1960 informing commanding officers of the successful candidates. The over-all list was released on 6 April.

Here's a breakdown of the number of E-7 promotions authorized by the Chief of Naval Personnel for this and the past year.

NOTE: Since the following list was set in type an additional 245 E-6s were named for advancement to pay grade E-7. This brings the overall total of CPO advancements authorized as a result of the February 1960 Navywide examinations up to 10,686.

The straggler's list was made up from examinations that arrived late at the Naval Examining Center. See next month's issue for a breakdown of the straggler's list.

RATING	1960		1959		RATING	1960		1959	
	PASSED	ADVANCED	PASSED	ADVANCED		PASSED	ADVANCED	PASSED	ADVANCED
AB	105	40	133	55	JO	16	16	13	13
AC	138	19	84	32	LI	33	10	30	3
AD	1320	1320	1337	116	MA	33	20	46	46
AE	203	66	159	159	ML	13	13	12	2
AG	42	29	35	35	MM	455	455	524	256
AK	141	75	126	34	MN	47	35	48	14
AM	472	472	421	220	MR	52	12	49	49
AO	311	311	284	23	MU	16	16	22	22
AQ	81	81	79	4	NW	23	23	35	35
AT	316	278	209	209	OM	17	17	14	3
BM	874	874	1102	431	PH	137	89	116	22
BR	17	17	11	11	PM	4	4	4	2
BT	311	298	315	191	PN	244	103	260	49
BU	38	7	35	10	PR	82	33	60	7
CE	27	20	20	20	PT	15	15	10	10
CM	50	7	64	8	QM	296	296	240	29
CS	561	453	736	162	RD	153	55	135	135
CT	173	25	126	25	RM	323	323	313	313
DC	184	118	226	50	SD	357	212	483	151
DK	135	64	107	31	SF	375	159	377	62
DM	16	7	13	13	SH	256	11	151	7
DT	134	53	144	7	SK	471	414	416	131
EM	332	194	409	314	SM	110	110	127	127
EN	609	376	677	347	SO	91	91	79	79
EO	83	11	67	4	SV	2	2	1	1
ET	374	231	435	102	SW	23	11	21	3
FT	369	176	267	10	TD	93	18	57	9
GF	32	17	36	4	TE/RM	58	58	70	70
GM	487	487	709	203	TE/YN	—	—	14	2
GS	33	33	26	12	TM	210	210	256	168
HM	1030	1030	1190	137	UT	30	14	19	19
IC	67	67	53	53	YN	703	322	879	113
IM	18	18	20	2	TOTAL	13821	10441	14536	4986

It's Up the Ladder for One in Every Twelve Navymen

ABOUT ONE OUT OF EVERY 12 enlisted men in the Navy will be advanced as a result of the February 1960 advancement in rating examinations.

A total of 61,428 men have been authorized by the Chief of Naval Personnel to sew on their crow or add another stripe. Some 53,400 of these were advanced on 16 May. The remaining 7941 are E-6s slated for advancement to CPO. They will be promoted in groups of about 2000 on 16 Jul, 16 Sep, 16 Nov 1960, and 16 Jan 1961.

Out of the 61,428 advancements, 10,441 went to POIs being advanced to CPO. (See page 53 for a breakdown of the E-7 promotions authorized). This is the largest number of E-6s selected to don the hard billed cap in the Navy's peacetime history. The first group of 2500 new CPOs were advanced on 16 May.

The other promotions, which went into effect in May, include 5713 men being advanced to E-6, 17,274 to E-5, and 28,000 to E-4. In addition, 13,000 E-3s are being designated as strikers.

Here's a breakdown of the E-4, E-5 and E-6 advancements authorized as a result of the February 1960 exams:

RATING	E-6	E-5	E-4	RATING	E-6	E-5	E-4
BM	245	195	123	AD	100	193	958
QM	117	226	417	AT	251	1240	1844
SM	66	295	471	AO	50	190	243
RD	120	669	1194	AQ	51	171	181
SO	69	412	794	GF	20	59	60
TM	204	270	378	AC	77	210	234
GM	394	300	184	AB	138	93	189
GS	43	68	116	AE	188	601	586
FT	153	558	834	AM	178	630	846
NW	24	56	234	PR	57	73	60
MN	20	31	35	AG	26	143	150
ET	107	1083	1613	TD	41	100	147
IM	13	30	22	AK	71	137	278
OM	5	17	43	PH	40	111	153
TE/RM	2	—	—	PT	10	5	10
RM	215	1005	2199	HM	258	445	604
CT	62	440	464	DT	30	39	138
YN	199	454	1134	SD	62	84	54
PN	139	248	470				
MA	17	75	127				
SK	289	500	532				
DK	30	104	154				
CS	99	169	120				
SH	12	23	60				
JO	11	43	77				
LI	20	4	23				
DM	6	50	46				
MU	20	79	135				
MM	275	1160	2401				
EN	381	908	1418				
MR	33	301	338				
BT	90	542	1394				
BR	4	—	—				
EM	216	1107	1487				
IC	71	529	782				
SF	100	394	620				
DC	44	59	188				
PM	2	16	26				
ML	10	17	16				
SV	2	25	27				
CE	18	49	73				
EO	19	32	107				
CM	7	20	73				
BU	33	98	199				
SW	21	35	44				
UT	38	54	73				

Naval Uniform Shop Has Mail Order Service

The Mail Order Service of the Naval Uniform Shop in Brooklyn is the answer to the problems of those officers and chief petty officers on duty at remote locations in both continental and overseas areas where it is impossible for them to purchase their uniform, uniform insignia or uniform accessory requirements locally.

This service particularly applies to those personnel attached to embassy staffs, military assistance advisory groups, naval missions, or other similar detached duties overseas where these items are not readily available.

Price lists are available, and will be furnished upon request, from: Naval Uniform Shop, 3rd Avenue and 29th Street, Brooklyn 32, N. Y.

Uniform and uniform accessory order blanks will also be furnished upon request. If your uniform measurements are currently on file at the Naval Uniform Shop, any article of the uniform can be supplied upon request. If your measurements are not on file, a measurement blank will be forwarded, in order that a local tailor in the area may take the required measurements. The form is self-explanatory, and facilitates measurement-taking.

These Were Selected as the Best Feeders among Navy Ships and Stations This Year

The annual Ney Memorial Award nominations have been made by each major Fleet and shore command. Out of the 37 nominations, a board of judges will select six finalists—three ashore and three afloat.

The six finalists will be visited by a six-man committee, and the winners and runners-up will be chosen.

The program was established in 1958 by the Secretary of the Navy. The Award recognizes Navy general messes judged to be outstanding in food preparation and service, memorializing the late Captain Edward F. Ney, SC, usn, World War II director of the Subsistence Division of Bu-SandA.

Ships and stations judged to be most outstanding by their commands in this year's competition are:

FIRST NAVAL DISTRICT

*Naval Retraining Command
Portsmouth, N. H.*

SIXTH NAVAL DISTRICT

*Florida Group, Atlantic
Reserve Fleet
Green Cove Springs, Fla.*

FIFTEENTH NAVAL DISTRICT

*Naval Station
Rodman, Canal Zone*

NINTH NAVAL DISTRICT

*Naval Training Center
Great Lakes, Ill.*

SEVENTEENTH NAVAL DISTRICT

*Naval Station
Kodiak, Alaska*

EIGHTH NAVAL DISTRICT

*Naval Air Station
Corpus Christi, Tex.*

THIRD NAVAL DISTRICT

*Naval Receiving Station
Brooklyn, N. Y.*

FOURTEENTH NAVAL DISTRICT

*Submarine Base
Pearl Harbor, Hawaii*

FIFTH NAVAL DISTRICT
ComServLant Flag Mess

FOURTH NAVAL DISTRICT
Naval Air Station
Johnsville, Pa.

ELEVENTH NAVAL DISTRICT
Naval Air Station
Miramar, Calif.

TWELFTH NAVAL DISTRICT
Postgraduate School
Monterey, Calif.

TENTH NAVAL DISTRICT
Naval Station
Guantanamo Bay, Cuba

THIRTEENTH NAVAL DISTRICT
Columbia River Group
Pacific Reserve Fleet

POTOMAC RIVER NAVAL COMMAND
Naval Communication Station
Washington, D. C.

COMNAVVAIRPAC
USS Bon Homme Richard
(CVA 31)

COMNAVVAIRLANT
USS Independence (CVA 62)

COMPHIBLANT
USS Taconic (AGC 17)

COMCRULANT
USS Galveston (CLG 3)

COMCRUDESPAC
USS St. Paul (CA 73)

COMINPAC
USS Embattle (MSO 434)

COMINLANT
USS Bluebird (121)

COMSERVPAC
USS Kawishiwi (AO 146)

COMSUBPAC
USS Greenfish (SS 35)

COMSUBLANT
USS Sablefish (SS 303)

COMNAVFOR JAPAN
Naval Communication Facility
Kami Seya, Japan

COMNAVPHIL
Naval Station
Subic Bay, Philippines

COMNAVCONSTFORPAC
MCB Three
Kubasaki, Okinawa

CINCUSNAVEUR
Naval Station
Rota, Spain

COMSTSLANTAREA
USS Randall (T-AP 115)

COMWESTSEAFRON
USS Locator (AGR 6)

SEVERN RIVER NAVAL COMMAND
Naval Station
Annapolis, Md.

COMPHIPAC
USS Paul Revere (APA 248)

COMDESANT
USS Courtney (DE 1021)

COMSERVLANT
USS Salvager (ARSD 3)
Naval Station, Argentina

COMSTSPACAREA
USS General W. A. Mann
(T-AP 112)

New Standards Set Up For Personnel Requesting Reenlistment and Extension

The Navy has established new standards on which recommendations for reenlistment are to be based. They apply to reenlistments or extensions of enlistment by Regular Navy and Reserve personnel on active duty, to enlistments in the Regular Navy by Reservists, and to voluntary retentions of Reservists on active duty.

Since the primary goal of the reenlistment program is a highly motivated and well qualified group of career enlisted men, it is essential that those selected to continue their Navy careers be people with a certain amount of ability and potential. It is also important that anyone who has been accepted for service beyond his first hitch have reasonable assurance he will be permitted to remain on active duty until he's eligible for retirement.

To make sure the Navy and the individual both benefit from the reenlistment program, commanding officers will now use these new minimum standards as a yardstick in

judging whether or not an otherwise eligible enlisted man should be recommended for reenlistment.

- **Pay Grades E-1 and E-2**—Those personnel who have been on continuous active duty for at least 30 months, and who are still serving in pay grade E-1 or E-2 when their active obligated service expires may not be continued on active duty.

- **Pay Grade E-3**—An individual still serving in pay grade E-3 at the expiration of his enlistment may not continue on active duty unless he has passed a service-wide examination for Pay Grade E-4.

- **Length of Service** — Enlisted men who have more than 30 years' active service, or who are approaching that mark, are being urged to take advantage of the terminal assignment benefits offered them under Chapter XIX of the *Enlisted Transfer Manual*, or to retire. Active service obligations beyond 30 years will not be authorized without prior referral to the Chief of Naval Personnel.

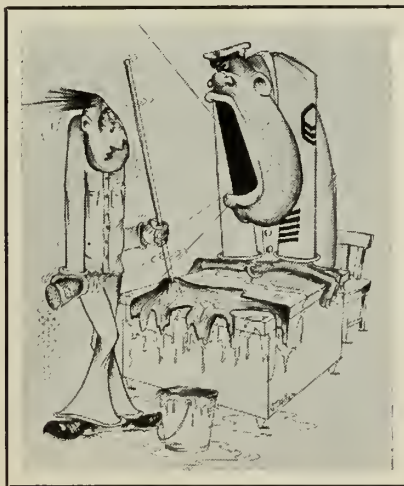
- **Dependency**—The dependency status of personnel up for reenlistment will be evaluated to make sure men who are administrative liabilities will not be continued on active duty. This applies particularly to those individuals in the lower pay grades who, because of large numbers of dependents, become administrative burdens through their indebtedness, restrictions on assignment or frequent requests for special consideration.

Besides meeting these new requirements, an individual being recommended for reenlistment should measure up to these more general standards:

- If serving in a first enlistment or a first period of active duty, the individual must have demonstrated satisfactory performance (as indicated by his service record), leadership ability with potential for improvement and an over-all potential for future useful and responsible service.

- If serving in a second or later enlistment or period of active duty, the individual must have demonstrated consistently satisfactory performance in his present grade (as indicated in his enlisted performance record) and he must have shown that he has the potential for

All-Navy Cartoon Contest
J. T. Miller, SN, USN



"Deck!! Not desk!!"

AFRS NEW YORK UNITED STATES ARMED FORCES PRESS, RADIO AND TELEVISION SERVICE SHORTWAVE SCHEDULE

GMT	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1430	DATeline NEW YORK	DATeline NEW YORK	DATeline NEW YORK	DATeline NEW YORK	DATeline NEW YORK	DATeline NEW YORK	DATeline NEW YORK
1500	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS	MARCH OF EVENTS
1515	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE	SPORTS PAGE
1530	THE LEADING QUESTION	THE JACK PAAR SHOW	THE JACK PAAR SHOW	THE JACK PAAR SHOW	THE JACK PAAR SHOW	THE JACK PAAR SHOW	AMERICA'S BUSINESS IN REVIEW
1600	(News Briefs)	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(News Briefs)
1605	P A N O R A M A	MEET THE PRESS	JUSTICE	U.N. AROUND THE WORLD	MIKE WALLACE	CAPITOL CLOAKROOM	P A N O R A M A
1630		DICK CLARK BANDSTAND	THE LAWRENCE WELK SHOW	COUNTRY JAMBOREE	ON THE CAMPUS	THE PERRY COMO SHOW	
1645							
1700		NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	
1705	P A N O R A M A	WHAT THE CRITICS SAY	HOBBY SHOP	EMPHASIS	SCIENCE IN THE SIXTIES	OPEN FILE	P A N O R A M A
1715		FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	FEATURE PAGE	
1730		SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	
1745	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY	SPORTS TODAY
1800	(News Briefs)	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(News Briefs)
1805	P A N O R A M A	MARTIN BLOCK	MARTIN BLOCK	MARTIN BLOCK	MARTIN BLOCK	MARTIN BLOCK	P A N O R A M A
1830		PANORAMA	PANORAMA	PANORAMA	PANORAMA	PANORAMA	
1900	NEWS -05-						NEWS -05-
1905	P A N O R A M A	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	P A N O R A M A
1915		WORLD OF SPORTS	WORLD OF SPORTS	WORLD OF SPORTS	WORLD OF SPORTS	WORLD OF SPORTS	
1930		PANORAMA	PANORAMA	PANORAMA	PANORAMA	PANORAMA	
2000	(News Briefs)	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	NEWS -05-	(News Briefs)
2005	P A N O R A M A	PANORAMA	PANORAMA	PANORAMA	PANORAMA	PANORAMA	P A N O R A M A
2030		SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	SPOTLIGHT ON A STAR	
2100	NEWS -05-						NEWS -05-
2105	P A N O R A M A	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	NEWS -15-	P A N O R A M A
2115		CROSBY-CLOONEY SHOW	CROSBY-CLOONEY SHOW	CROSBY-CLOONEY SHOW	CROSBY-CLOONEY SHOW	CROSBY-CLOONEY SHOW	
2130		FACE THE NATION	JEFFERSONIAN HERITAGE PACIFIC PORTRAIT	PRESIDENT'S NEWS CONFERENCE	WAYS OF MANKIND	ART OF INVESTING	
2200	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION	FINAL EDITION
2215	FOR THE LADIES	AMERICA'S BUSINESS	AMERICA'S BUSINESS	AMERICA'S BUSINESS	AMERICA'S BUSINESS	AMERICA'S BUSINESS	GARRY MOORE
2225	COMEDY TIME	COMEDY TIME	COMEDY TIME	COMEDY TIME	COMEDY TIME	COMEDY TIME	
2230	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL	SPORTS FINAL
2244	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF	SIGN OFF

THIS SCHEDULE EFFECTIVE UNTIL OCTOBER 1960

TIME (GMT)	FREQUENCY	WAVE LENGTH	BEAM AREA	TRANSMITTER	BEARING	TIME (GMT)	FREQUENCY	WAVE LENGTH	BEAM AREA	TRANSMITTER	BEARING
1430-1700	17.785 MC	16.87 M	Europe	WDOU-5	42°	1700-2245	15.270 MC	19.60 M	Caribbean	WDOU-5	150°
1430-2245	21.650 MC	13.91 M	Europe	WDSI-1	55°	2000-2245	15.440 MC	19.43 M	Europe	WDSI-2	55°
1700-2245	17.780 MC	16.87 M	Europe	WDOU-5	42°	1515-2245	15.415 MC	19.46 M	Mid-East	Hendch 7	115°

future useful service in his present or higher grades.

The new standards are contained in BuPers Inst. 1133.11A. The basic instructions on the reenlistment program may be found in the *Bureau of Naval Personnel Manual* and directives dealing with reenlistment and continuation on active duty.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm, feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in April 1960.

Horrors of the Black Museum (1491) (C) (WS): Melodrama; Michael Gough, June Cunningham.

Blood and Steel (1492) (WS): Melodrama; John Lupton, Ziva Rodann.

The Unsuspected (1493): Drama; Joan Caulfield, Claude Rains.

1001 Arabian Nights (1494) (C): Cartoon feature.

Edge of Eternity (1495) (C) (WS): Melodrama; Cornel Wilde, Victoria Shaw.

Goliath and the Barbarians (1496) (C) (WS): Melodrama; Andrea Cheecti, Gino Scotti.

Kiss in the Dark (1497): Drama; David Niven, Jane Wyman.

A Touch of Larceny (1498): Comedy; George Sanders, James Mason.

Journey to the Center of the Earth (1499) (C) (WS): Science Fiction; Pat Boone, James Mason.

Three Came to Kill (1500): Melodrama; Cameron Mitchell, John Lupton.

My Wild Irish Rose (1501): Musical; Dennis Morgan, Arlene Dahl.

Li'l Abner (1502) (C): Musical; Peter Palmer, Leslie Parrish.

Home from the Hill (1503) (C) (WS): Drama; Robert Mitchum, Eleanor Parker.

The Big Night (1504): Drama; Randy Sparks, Venetia Stevenson.

April Showers (1505): Musical; Jack Carson, Ann Sothern.

The Gazebo (1506) (WS): Comedy; G. Ford, Debbie Reynolds.

BOOKS

LOTS TO CHOOSE FROM IN THIS MONTH'S SELECTIONS

THE LIBRARY SERVICES BRANCH is faced with a problem for which it sees no ready solution. Occasionally it receives for consideration a book which has merit but will be of relatively limited appeal. In other words, some will thoroughly enjoy it; others won't. It probably won't be popular enough to warrant distribution to all ships and stations. How are they going to get the word to those who will benefit by it?

A Canticle for Leibowitz, by Walter H. Miller, Jr., is such a book. Chances are, you've never heard of it. It's difficult to describe. It is laid in the future and tells of the results of atomic warfare, but it would be inaccurate to classify it as science fiction. One reviewer calls it "a work of the imagination," and that's about as close as any description. Those who have read it are sharply divided into two schools of thought—they're rabidly enthusiastic about it, or they're utterly indifferent. It's quite possible that you won't see it on the shelves of your local library, but if you are willing to take a chance on a distinctly off-beat novel, it is suggested that you drop a note to the chief of Naval Personnel (Pers G 14). We think it's the most remarkable effort it has been our pleasure to read in some time.

Had we not been distracted by *Canticle*, **The Thunder of the Guns**, by CAPT Donald Macintyre, RN, would surely have led the list for this month. **Decision at Trafalgar**, by Dudley Pope, would follow as a close second.

Thunder tells of the hundred years or so in which the ironclad, steamdriven battleships ruled the navies of the world. Their design, gunpower, thickness of armor and speed were of extreme importance to every nation who wanted to be a Great Power. To those who served in them, they acquired personalities of their own. *Thunder* is an account of these ships from the ironclad frigates of the early 19th Century to the giants of yesterday.

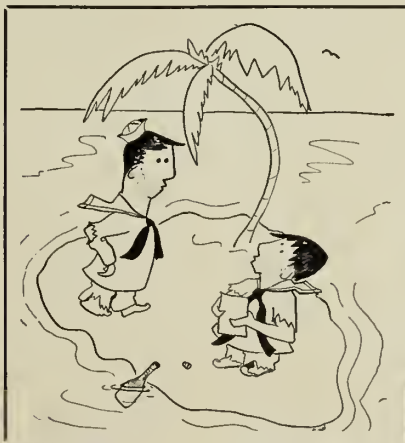
Thunder gives the big picture; *Trafalgar*, on the other hand, gives the vivid details of a single event—one which changed the history of Europe for almost a hundred years.

In 1805, Napoleon's armies were massed at the main Channel ports. Barges were being assembled for the big crossing and England was expecting an invasion at any time. The only obstacle to the complete rule of Europe by France was Nelson and the Royal Navy. It was Nelson who destroyed Napoleon's hopes at Trafalgar. Dudley describes the battle almost shot by shot.

Kriegie, by Kenneth W. Simmons, is something else again. This is a straightforward prisoner-of-war story of an Air Force flier who was forced to bail out over Germany. However, the small details of everyday existence in a POW camp make interesting and instructive reading. His description includes items which will never be found in an official version of such a life: The strict security system set up by the prisoners; the trading post with the guards; the private projects which ranged from forging to tunneling; the bridge games at one-fifth of a cigarette per point; as well as the final "death march" just before liberation.

One other World War II title, **Climax at Midway**, by Thaddeus V. Tuleja, CDR, USNR, has been selected for comment this month. Paralleling to a limited extent the volume earlier mentioned, *Decision at Trafalgar*, *Midway* tells the story of another battle almost equally important for, had the outcome been different, it would have changed the course of the entire World War II.

All-Navy Cartoon Contest
E. L. Hale



"It says, resubmit in triplicate."

However, not only does CDR Tuleja present the battle of Midway in vivid detail, he also discusses at some length the events which led up to it. Many men still on active duty will be interested in seeing the large picture of a battle in which they themselves took part.

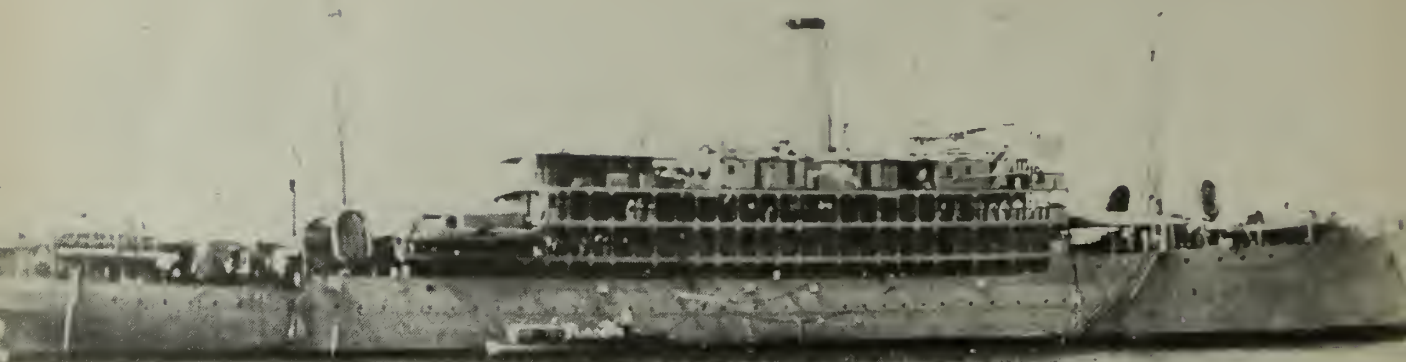
The prospect of browsing through **The Compact History of the United States Marine Corps** would not seem, at first glance, to make the pulse of many Navymen beat faster. Yet the authors, LTCOL Philip N. Pierce, USMC, and LTCOL Frank O. Hough, USMCR, have succeeded in turning out an exceedingly readable and interesting piece of work. A neat, workmanlike job in which the very thorough scholarship is shrewdly disguised by an easy-reading style.

Also included in this month's selections are **Generalship of Alexander the Great**, by Major General J. F. C. Fuller, and **Naval Logistics**, by VADM George C. Dyer, USN (Ret.). General Fuller is, of course, an old pro who has written many books on military subjects and, in this, he provides an excellent reconstruction of Alexander's battles and evaluates his actions in terms of the familiar principles of war. His style provides easy reading of an important and interesting historical character. Somewhat more technical, *Logistics* discusses just what you'd expect from the title. It is another one of a series of professional books published by the U. S. Naval Institute.

Two outstanding titles are included among the volumes of fiction recently available at your ship and station library. Publication of **Ourselves to Know**, by John O'Hara is, of course, big news at any time. Not quite so well known, **A Distant Trumpet**, by Paul Horgan, is of equal significance.

The incident which O'Hara chooses as his vehicle this time is the murder, many years earlier, of the protagonist's wife. No cops and robbers mystery here but, rather, the development of the individual after that major event.

Distant Trumpet might almost be called a glorified Westerner. Though the main story is laid in the 1880s, it has its beginnings in, and is affected by, forces arising out of the Civil War; and the chief scene of action is an Army outpost on the Indian frontier in the southwest.



Canopus Courageous

Combat vessels are usually granted the headlines in history—and rightfully so. However, no class of ship holds a monopoly on devotion to duty. Witness the story of USS *Canopus* (AS 9), as told by Captain E. L. Sackett, USN (now RADM, Ret.).

Canopus had never been particularly dashing and by the time she was to meet her finest hour she was no longer young, but she did have a certain majesty to her appearance. True, at times she waddled like a duck, but that was only natural for the middle-aged type that she was.

Built in 1921 as a combination freight and passenger carrier for a steamship line, she had been taken over by the Navy and converted into a submarine tender. She was given extensive machine shops, foundries, storerooms, cabins and living spaces for the comfort of off-duty submarine crews. A few guns were stuck on her deck to remind her that she was also a man-of-war.

In 1925 *Canopus* escorted a division of six "S" type submarines of World War I vintage to the China Station. She never returned to the States.

The following account is a report made available by the Ships' History Section, Navy Department.

IT HAD ALWAYS BEEN expected that USS *Canopus*, along with other slow auxiliary ships would, if possible, be hurried out to safer spots further south when war became imminent, on the basic assumption that the Philippines could not be held for long. It didn't work that way.

In early December of 1941, *Canopus* had just finished an extensive overhaul at Cavite Navy Yard, and emerged looking more like a Navy ship than ever before. Many antiaircraft guns had been added to her armament, and light armor had been fitted around exposed positions.

Submarines were considered the first line of defense for the Philippines and were expected to operate from bases as far advanced in the field as possible. But submarines cannot operate long without supplies and repairs, and a surface tender had to be available to supply these

services, even though her eventual loss by air attack would be almost a foregone conclusion if she stayed within aircraft range.

Canopus was chosen for this sacrifice, probably because the other tenders were newer and faster.

THE FIRST DAY after Pearl Harbor was one of intense activity. "Strip ship" was no longer a practice evolution—it was the real thing.

At midnight of the first day, an air attack on Nichols Field brought the war to where we on *Canopus* had a grandstand seat. From our anchorage off Cavite, just far enough away to muffle the noise, the showers of red and yellow tracer bullets, and the sparklers of antiaircraft bursts followed by the bonfire glare of burning hangars and planes had an unreal quality which made it hard to realize that this was war.

However, we had no desire to become a bonfire ourselves. We got underway and steamed around the harbor all night, so we would not be caught napping if we received an attack. It is a wonderful solace to the nerves to be doing something, no matter how ineffectual, rather than to be a sitting duck, waiting for the hunter to let fly.

At dawn *Canopus* was ordered to go alongside the piers in the Port Area of Manila. This was chosen for the base of operations because when and if the expected sinking occurred, the depth under our keel would be shallow enough so that the ship would rest mostly above water, and valuable stores, torpedoes and equipment could be salvaged.

TORPEDOES AND SPARE PARTS were hurriedly unloaded, and lightered out to Corregidor, where less vulnerable ships were put into operation. Other stores and provisions were divided up, and one part stowed in a small inter-island ship so all wouldn't be lost in one attack.

The superstructure of *Canopus* was painted to match

the color of the piers alongside, and camouflage nets spread overhead in an effort to deceive the enemy as long as possible. The more exposed fuel tanks were emptied and filled with water.

However, the enemy had their own schedule, and *Canopus* apparently was well down on the list of objectives. The main air fields had been first, then came Cavite.

Bomb-damaged ships straggled out of Cavite Navy Yard following the attack, and *Canopus*' repair force worked night and day getting them ready for sea, as well as equipping their regular brood of submarines for offensive patrols. Daily alarms sent the subs to safety on the bottom of Manila Bay, but as soon as the marauding planes had left, the "Business as Usual" sign would be hung out again.

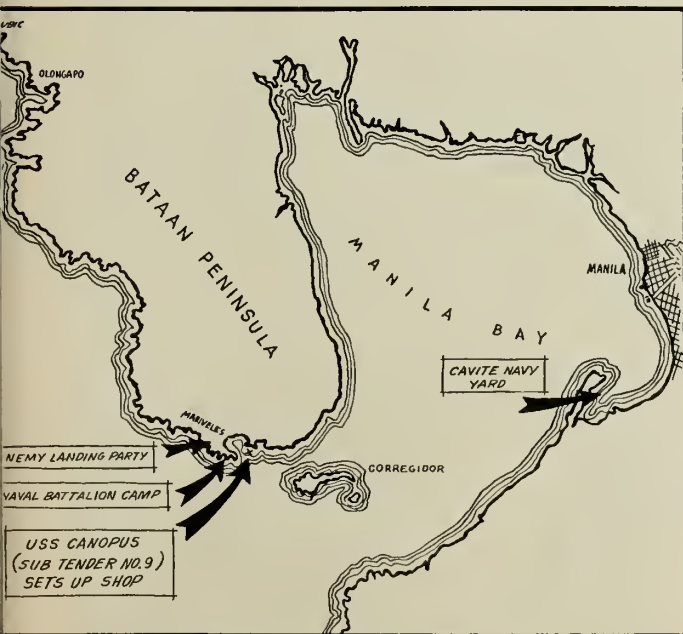
This sort of life did not lack for excitement. There was every indication that conditions would get no better, and with the Army falling back on Manila, word came that the city would soon be abandoned to avoid complete destruction. Although *Canopus* was still intact, the harbor could no longer be used as a submarine base. On Christmas Eve our headquarters was hit, and spent bomb fragments landed on our decks.

During the night we got underway for what proved to be our last journey, and steamed out of the Bay toward Corregidor, with great fires and towering columns of smoke astern of us.

We were to set up shop again in Mariveles Bay, on the southern tip of the Bataan peninsula. Some of the submarines were still with us, but now we had no source from which our supplies could be replenished, and it was obvious that the best we could hope to do would be to equip this last group for war patrol, and then turn in our suits so far as subs were concerned.

IT WAS HOPED that Mariveles Bay, being close to the guns of Corregidor, would be immune to air attacks, although some misgivings were felt on that score when we found a bombed and burning merchant ship in the

LAST PORT—Chart shows location in Philippines where *USS Canopus* (AS 9) set up repair shops for last time.



harbor and learned he was hit the preceding night. However, with high hopes, we moored the ship to the shoreline in a protected cove, and again spread our camouflage nets overhead. This time, the object was to make the ship look like part of the jungle foliage ashore, and we succeeded very well by using a mottled green paint, with plenty of tree branches tied to the masts and upper works. Unfortunately, a rock quarry nearby had made a white gash in the cliff, and from one direction, this made a background impossible to match.

On 29 December our daily visitors, evidently deciding that Manila had been adequately taken care of, turned their attention toward us. Squadron after squadron showed their contempt for the guns of Corregidor by blasting that island from end to end, and the last group of the day, as if by an afterthought, wheeled in from that fatally exposed direction and blanketed *Canopus* with a perfectly placed pattern of bombs.

Tied up as she was, and unable to dodge, it seemed a miracle that only one of the missiles actually struck the ship, but that one bomb nearly ended our career then and there.

It was an armor-piercing type which went through all the ships decks and exploded on top of the propeller shaft under the magazines, blowing them open and starting fires which threatened to explode the ammunition.

Hardly had the rain of rocks thrown from the craters in the nearby hillside subsided when fire fighting crews had jumped to their work. The executive officer organized one party on deck, which attacked the blaze from above. They found smoke pouring from ammunition scuttles leading to the magazines below, and directed their hose streams down the hatches, unmindful of ominous detonations which told them the magazines might blow up at any moment.

Gunner's Mate Budzaj climbed down a smoke-filled ammunition trunk with a hose in an effort to get at the bottom of the flame. When the fire pumps failed for a few moments, bucket brigades carried on the battle.

IN THE MEANTIME, below decks, another fire party was organized which tackled the problems by carrying their hoses through choking smoke in the compartments near the magazines, pulling wounded and dying men away from the blasted area where they had fallen. Most of the oxygen-type breathing apparatus had been cut off by the explosion, but a shipfitter donned the one remaining outfit, and carried the hose right down to the magazines, backed up by his shipmates working in relays, each of which stayed as long as men could stand the fumes.

Our Chaplain McManus led a rescue group into the engine room, where fragments and escaping steam had caused the most casualties, administering last rites to dying men and helping to evacuate the injured to makeshift dressing stations.

The officers in charge of the engine room had both been badly wounded by the first blast, but the Chief Machinist's Mate left in charge shut off the steam at the boilers until severed steam pipes could be isolated, thus saving more of his men from being scalded to death. He then helped the wounded to safety, and was later found wandering around dazed, having no recollection of what happened after the blast.

For hours the crew fought before all the fires were finally out. When the magazines were inspected, several



ZEROING IN—Japanese planes made constant raids on Navy men but they still kept *Canopus* open for business.

crushed and exploded powder charges were found, mute evidence showing how close to complete destruction the ship and all on board had been.

Nothing less than a miracle could have prevented a general magazine explosion at the time the bomb set off those powder charges, but miracles do happen. The bomb had carried its own antidote, and its fragments which severed pipes near the magazines had released floods of steam and water at the danger point, automatically keeping fire away from the rest of the powder.

That same night, up went the "Business As Usual" sign and repair men went to work binding up the 'old lady's' wounds, at the same time that others were busy servicing submarines.

CANOPUS was seaworthy again in a few days, although much ammunition had been lost by flooding the magazines, and several store rooms were badly messed up. This cloud, however, had a silver lining for our supply officer, who found his office wrecked and his accounts burned. This gave him a heaven-sent chance to put an end to all his laborious accounting system.

From that time on, our supply system was beautifully simple. What we had, we could use without the usual red tape, and if something was lacking, nothing could be done about it except to improvise a substitute.

Curiously enough, the men who had been the worst troublemakers in time of peace, became our most shining examples in wartime. Perhaps they had just too much restless energy for their own good when things were normal, but this same quality enabled them to perform prodigies when the chips were down.

When the last of the submarines had pulled out just before the New Year opened, we were left with something of the feeling of a mother when the last of her children has grown up and left the home fires, to battle the world alone. Nothing would seem more useless than a submarine tender with no submarines to look out for, but we were soon to find that there were orphans aplenty to be adopted.

There were many small Navy ships which were also stranded by the tide of war ebbing south. These needed constant repairs as well as additional equipment for the task ahead of them. The word got around to all Army and Air Force units, of the well equipped shops which could and did accomplish miracles of improvisation, and these groups were not slow in making full use of our facilities. Again, the men of the *Canopus* could feel that they had a major share in the new mission—to hold Bataan.

HOWEVER, OUR FIRST BOMBING had made it apparent that the ship was not exactly a safe spot to while away the daylight hours, so the policy was adopted of scattering as many of the crew as possible ashore to sleep during the day, and return for work all night.

Just a week after the first bombing, the enemy sent another squadron of planes over *Canopus* to try to settle the affair once and for all.

Again the closely bunched bomb pattern blanketed the ship, but again only one missile made a direct hit. This time it was a quick-acting smokestack, and literally sprayed the upper decks with small fragments. The gun crews, who had ducked behind their shields at the last instant before the bombs landed, had little protection from splinters coming down from above, and three-quarters of them were wounded—fortunately with no fatalities. No serious fires were started, but the upper decks looked like a sieve as hundreds of fragments had pierced the light plating.

The damage due to the one direct hit had been only superficial, but inspection below decks disclosed that several near misses had also taken their toll. Each side had been pierced a few feet above the water by 40 or 50 fragments of bombs exploded by contact with the water alongside. Another bomb had exploded deeper in the water and dished in the hull two or three inches, cracking the plating and loosening rivets. These were the wounds which had to be bound up to make the vessel again seaworthy, and the welders were soon on the job, plugging the openings.

The tough old girl was not ready for her grave yet, but if she were to continue a career of usefulness, it seemed best to make the enemy think the last salvo of bombs had done the trick.

It was useless to pretend any longer that we weren't there, but at least we could make them think that what was left was useless.

The next morning when "Photo Joe" in his scouting plane came over, his pictures showed what looked like an abandoned hulk, listed over on her side, with cargo booms askew and blackened areas around the bomb holes, from which wisps of smoke floated up for two or three days.

What he did not know was that the smoke came from oily rags in strategically placed smudge pots, and that every night the "abandoned hulk" hummed with activity.

NEAR MISS—Constant bombing included direct hits and many near misses that did great damage to the tender.



Evidently he was completely deceived, because only one half-hearted attempt was made a week later by dive bombers to finish off the ship, and that was driven away without damage, by our anti-aircraft machine guns. These had been taken off the ship and mounted on the hills nearby, so as not to draw further retaliation to the vessel.

SOME SORT OF PROTECTED LIVING QUARTERS ashore were a necessity if the night workers were to get any rest. This problem was partly solved by taking over a large storage tunnel just completed and building bunks, offices, hospital accommodations, a radio and telephone communication center, and a makeshift field kitchen for cooking our two meals a day. More than a hundred men not having repair duties lived underground with reasonable comfort, at least after the water dripping from bare rocks overhead had been trapped and piped to a shower spray, so that baths might at least be voluntary.

Many of the repair force slept during the day in this shelter, but most of them scorned the dank air and preferred to take their chances in the wide open spaces in the nearby hills, where they learned to sleep under the shade of tropical trees, leaving a lookout to warn them in time to roll into a fox hole whenever a bomber looked threatening.

By no means were all of our men in the night-owl group. Machine guns on every hilltop were manned by sailors with itchy trigger fingers.

Mariveles Harbor seemed to be well defended against surprise attack by the naval forces clustered around it and the Army had stabilized a front about 20 miles further north, on the other side of Mariveles mountain—but what about the seacoast between? Most of it was very rugged, and backed up by thick jungle, but the one road which provided the only line of communication to the front lines passes quite close to the sea at many points. Commander Francis Bridget, who had been left in charge of the remnants of naval aviation in the Philippines, did not think that this tenuous lifeline was adequately defended against a sudden landing on the coast.

He sold the proposition to other naval organizations in Bataan, and collected 130 men from *Canopus*, about 80 from the Ammunition Depot detail, a hundred or so Marines, and a few refugees from the Cavite Navy Yard.

The heterogeneous groups Bridget formed into the "Naval Battalion."

EQUIPMENT WAS A SERIOUS PROBLEM. However, rifles and ammunition of some sort were finally begged, borrowed or stolen for most of the men. Their white uniforms were dyed to what was supposed to be khaki color, but which turned out to be a sickly mustard yellow. Only about one canteen could be found for every three men, but the great American tincan was pressed into service to make up the deficiency.

Training was the next essential. Perhaps two-thirds of the sailors knew which end of the rifle should be presented to the enemy, and had even practiced on a target range, but field training was practically a closed book to them. The experienced Marines were spread thinly throughout each company in the hope that, through precept and example, their qualities would be assimilated by the rest.

Thus equipped, the men sallied forth one day late in January for a preliminary hike to the coast to harden them up. At the base of Mt. Pucot near the sea they met an agitated group of soldiers who had just been



STORMY PORT—As harbor is destroyed by bombing, *USS Canopus* vacates Cavite and moves to Mariveles.

chased away by Japanese from their signal station on the mountain top. Apparently a landing had been made nearby the night before, just as Bridget feared, and the invaders were working their way inland toward the communication road.

Here was "field training" with a vengeance for our budding infantrymen. Figuratively thumbing their manuals, they hastily deployed in accordance with the best traditions of the books, and advanced in line of skirmishers. Contact was established as might be expected and the maneuver drove in the advance patrols of the surprised Japanese.

THE STRENGTH of the main forces next encountered convinced our men that they had a bear by the tail and since the book failed to provide the proper procedure in such a contingency, they threw it away. Five days of what was probably the weirdest jungle fighting in the annals of warfare ensued, with all accepted principles violated, and no hold barred.

Adjacent units were unable to maintain contact with each other during the night, so, of course, the enemy took advantage of his famous infiltration tactics. However, this did not have the expected results, because, not having been indoctrinated into the ancient Army principle that it is fatal to be outflanked, we simply held our ground and sent back detachments to clear out the annoying intruders behind our lines.

Another essential item which had somehow been overlooked in the plans was the service of supply. In the excitement, nobody thought much about that until nature began to assert itself as night came on and we began to get hungry and tired.

A hurry call was sent back to *Canopus* to "send plenty of everything," and trucks were rushed to the new front with food, ammunition, blankets and stretchers for the wounded. For days, all other work was dropped and all hands were pressed into service to make sure the fighting men lacked nothing that would help.

The enemy landing party was made up of picked men, larger and stronger than the average, and well equipped for jungle fighting. Had it made a determined assault, it could undoubtedly have wiped out completely our whole ragged battalion. But they knew the business of war, and were sure our front lines must be backed up by powerful reserves somewhere. If they could only find out where these reserves were located, they would know where best to make their drive.

The big push was held up while their scouts searched for the elusive forces. How could they guess that the crazy Americans were so ignorant of the art of war as



SIDE BY SIDE—From shore positions, Navymen, Marines, Army and Philippine Scouts held off 200,000 of enemy.

to blithely ignore the necessity for reserves? Sixty more Marines with trench mortars were brought over from Corregidor to counteract the advantage the Japanese had enjoyed with similar weapons, but they were also used in the front lines, and could hardly be called reserves.

A diary later found on the body of a Japanese officer testified to their complete bewilderment, describing the strange conduct of the "new type of suicide squads, which thrashed about in the jungle, wearing bright colored uniforms, and making plenty of noise. Whenever these apparitions reached an open space, they would attempt to draw Japanese fire by sitting down, talking loudly and lighting cigarettes."

Bataan may well have been saved from a premature fall by the reckless bravado of those sailors, because if the Japanese had succeeded in cutting off supplies to the western Army front, a general retreat from those prepared positions might have been necessary.

ON THE FIFTH DAY, the 57th regiment Filipino Scouts arrived to relieve the Naval Battalion. These Scouts were the cream of the crop, intensely proud of their service. The Scouts could, and did, outdo the best of the enemy in the jungle fighting.

The officers swore that their men could smell a sniper in the trees, and cited numerous cases where Scouts stalking through pitch-dark jungles at night would suddenly fire a shot upward into the trees, bringing down a sniper. Any scout who used more than a single shot to bring down his enemy had to face caustic comment by his mates.

The landing force of the enemy was down, but not yet out. The rugged cliffs under which the remnants had taken refuge, were honeycombed with crevices and caves, washed into the rock by wave action in ages past. Practically well-nigh inaccessible from the land side, it was suicide to try to ferret them out, and they still had plenty of food and ammunition to stand a long siege.

CDR Bridget's men had been relieved of the land fighting, but they had not lost interest in the course of events. Attacking the problem from a sailor's viewpoint, they conceived a plan for cleaning out the hornet nests by shooting into them from the sea. Here again, *Canopus* repair men rose to the occasion.

Conversion work was started on three of her 40-foot motor launches, to make them into "Mickey Mouse Battleships" armed with heavy machine guns and a light

field piece, and protected by boiler plate around the engine and gun positions.

It was a seven- or eight-mile cruise by water to Longoskawan Point, but they made two round trips the first day, blasting scores of Japanese out of their caves with gunfire. As evidence of their success, they brought in two prisoners, alive but dazed, and three others who had not survived the return voyage.

The second midget man-of-war was completed on the next day, and both craft steamed out for further glory. However, this time the hunting was not so good, although all the area was thoroughly combed.

There was soon more work for our miniature craft, however. Just after Longoskawan Point had been cleared, another landing had been made on Quinauen Point, several miles further north. This landing had not been made without opposition, since Bulkely's mosquito craft had attacked the landing barges and the war vessels guarding them, while the Army's few remaining P-40 fighters bombed and strafed everything in sight. Thirteen loaded barges were reported sunk, and a large destroyer hit by one of Bulkely's torpedoes, but many of the Japanese troops got ashore, and there was more work for the Scouts. This time a whole week was required to push the Japanese over the cliffs, as persistent efforts were made to reinforce their beachhead, supplies even being dropped by parachute during the battle. However, the Scouts, reinforced by light artillery, were not to be denied, and at last, our sea-borne cleanup squad was again called in to disinfect the cave of Quinauen Point.

THIS TIME, the little expedition was not so lucky. Four Japanese dive bombers, probably in belated response to a radio call for help, dived out of the sun on the boats. One was shot down by Gunner's Mate Kramb, who died at his machine gun while pouring bullets into the attacking plane, but a salvo of bombs crashed all around the leading boat, blowing a hole in its bottom. Goodall was badly wounded in both feet, but ordered the little boats beached to save the lives of the men still unhurt.

Three men had been killed, and four others wounded by the attack, but the survivors improvised crude stretchers for the wounded men, and laboriously cut their way through the jungle to the road. There a friendly truck driver gave them a lift back to *Canopus* and medical care.

The Naval Battalion had served its purpose, and their work in Bataan was done. Light naval guns were now being mounted along the coast, and machine gun nests established by the Army in order to make further landing attempts by the Japanese extremely difficult. However, the beaches of Corregidor and the other fortified islands were long, vulnerable and only lightly guarded. The Japanese forces near Manila were preparing for landing operations, so the Naval Battalion soon left us to join the 4th Marine Regiment defending those beaches. Goodall being out of action, our Engineer Officer, Lieutenant Welch, stepped into his place.

ENEMY SCOUTING PLANES and occasional light bombers were still seen almost every day, mostly over our front lines or airfields, but nothing was attempted that could compare with earlier attacks. Perhaps the answer was that the Japanese were busy on other projects—it was during this time that drives on Singapore and Java were in full fury.

Whatever the reason, Navymen in the Mariveles area

frequently found themselves on the verge of boredom, and even though *Canopus* repair men had plenty of work, other ratings sometimes found time for idle speculation and conjecture. The radio always brought us daily news of fighting on other fronts, and broadcasts were always followed by meetings of amateur boards of strategy, intent on devising ways and means by which relief could be sent to the islands, or routes by which the marooned ships could escape from the trap, to rejoin the Fleet fighting far south of us.

After all, if little merchant ships could slip through the southern Philippine ports and return, as they did several times during the lull, why wouldn't *Canopus* or any of the smaller ships have a chance of getting through to Australia? Nevertheless, the answer from the high command was always an emphatic "NO" and that was that.

In spite of rebuffs, our men never quite gave up hope that the situation would some day change so that they could sail the seas again, and they were determined to be ready for that day—if it came. The fuel in *Canopus*' tanks was hoarded like gold, representing as it did even more value in terms of possible salvation. The ship's boats were kept tuned up, and plans laid for just such a dash as LCDR Morrill and his men later made when capture was imminent. Almost anything that would float was an object of speculation as to its possible value in escaping capture if the worse came to worst.

DURING THE LAST WEEK in March a heavy and sustained offensive suddenly broke against our weary and undernourished troops.

Supplies and equipment had evidently been stocked at captured air fields, so that they could now be used as bases for sustained offensive operations. It was only about a 15-minute trip by bomber from these fields to Bataan or Corregidor, which made it possible for the Japanese to keep the air filled with planes throughout the day and night.

For the first time during the siege, they experimented with night "nuisance raids." The planes came in either singly or in pairs. Their pilots were usually blinded by Army searchlights so that their bombing was inaccurate, and effective only in breaking up the rest of our weary defenders.

Constant day attacks, however, took a more substantial toll. Much of the Navy's oil supplies, scattered in small caches in the underbrush around Mariveles Harbor, was touched off by searching bombs. Exposed water pipes, telephone and power lines had to be repaired daily to maintain services. Few of the temporary buildings, set up to provide shelter during the approaching rainy season, were untouched. Word was gotten to the Japanese that *Canopus* was still an effective unit, resulting in four more unsuccessful attempts to destroy her.

With enemy planes hovering constantly overhead, the artillery, which had been a major factor in stopping previous attacks, was unable to keep any effective fire. Showers of bombs would crash around any emplacement when its position was disclosed by the smoke and blast of discharge.

It was scarcely a surprise when we heard reports on 6 April that the front lines were in serious trouble. Under a terrific artillery barrage, the Philippine Army troops in the center of the line had given away, and exposed the crest of Mariveles mountain to capture. Now indeed our artillery was blind, having lost the

elevated observation posts which were their only means of directing the fire of their guns. Unless the lost positions could be recaptured, the whole peninsula would be exposed to Japanese artillery fire.

All reserves were drawn in for the supreme effort, and every remaining tank was thrown into the breach. Even the beaches were left unguarded in order to provide all possible reinforcements, but the task proved too great for the weakened troops. On 8 April came the news that Army forces of the eastern flank were retreating toward Mariveles Harbor, destroying stores and ammunition dumps in the path of the victorious Japanese.

ALL HOPE OF HOLDING BATAAN was gone, leaving us with the grim duty of destroying everything that might be of value. Early in the day, the Commandant had told us that no Army or Navy forces would be evacuated to Corregidor, since that island was already overcrowded. However, at 2230 that night, he telephoned that General Wainwright had decided to accept on the island one Scout regiment and the naval forces at Mariveles.

These favored units were to augment the beach defenses of Corregidor, thus continuing the fight from a new set of fox holes. Unfortunately, it later developed that very few of the Scouts were able to reach an embarkation point for Corregidor before the Japanese cut them off.

Evacuation of the Navy forces had to be completed before dawn brought over more swarms of bombers or an advance guard of Japanese tanks. Without defenses and shelters which were being destroyed, the sailors would be helpless. That wild and horrible, yet weirdly beautiful night must be imprinted forever in the memories of all who lived through its spectacular fury.

For miles back on the slopes of the mountain, burning Army ammunition dumps lighted the sky with showers of rocket-like streamers, while the ground shook with heavy detonations of exploding ammunition. A severe earthquake shock felt on Corregidor was not even noticed on Bataan, which was continually vibrating with man-made earthquakes.

Roads were choked with retreating troops, often stopped for hours waiting for a dangerously near ammunition dump to burn itself out. Around the shores of Mariveles Bay, Navymen blew up the Dewey floating drydock, which had served the Asiatic Fleet for so many years, and scuttled the ships which had no part to play in defending Corregidor.

Canopus seemed reluctant to go, but her crew still takes pride in the fact that the Japanese were unable to knock her out—and she was able to back out under her own power to deep water.

There she was laid to her final rest by the hands of the sailors she had served so faithfully.

HARD HITTING torpedo boats were jury-rigged from motor launches by repairmen chasing enemy from caves.



TAFFRAIL TALK

AS FURTHER EVIDENCE of our rapidly changing Navy, we offer for your consideration the claim of Chief Allan G. LeBaron, ETC, of the Great Lakes, Ill., ET school.

Based upon their former ratings, the 27 electronics technicians of the COMDIV staff could, without any more than normal strain, get a ship underway. Most of these men reached first class or chief in other ratings; then converted to ET. All have at one time or another served aboard ship in their old ratings.

Within the division, there are ex-machinist's mates, damage controlmen, enginemen, quartermasters and torpedomen. There is also one each from the following ratings: shipfitter, gunner's mate, electrician's mate, yeoman, machine accountant (he might not have too much to do with getting the hypothetical ship underway, but he could help in getting the men), machinery repairman, disbursing clerk (essential to *any* operation), and a pipefitter.

Also included are three ex-boatwain's mates. The division does lack an ex-hospital corpsman, but the Division Officer, CWO Wayne E. Conner, has done considerable work with naval medical research. He could, suggests LeBaron, fill the billet on a temporary basis.

All chiefs and no Indians? Not at all, says LeBaron in the Great Lakes *Bulletin*.

"The men cited above are all ET instructors. They teach students. The students are all young healthy and intelligent—capable of being converted to excellent seamen. They could furnish the manpower for such essential jobs as mess cooking, side cleaning, bilge cleaning and other necessary functions not usually performed by senior petty officers."

Convinced? Of one thing we are assured. Such a ship would make history, however brief her career.

★ ★ ★

Our EICOCWCID—or, as you'll recognize, our Editor-in-charge-of-credit-where-credit-is-due—reminds us about Bruce Bennett. Bruce Bennett is a PH1 attached to LANTFLTMOPOU of FAU COMNAVAIRLANT. An accomplished photographer, he recently gave ALL HANDS a lot of help. So, here's CWCID for Bruce Bennett.

★ ★ ★

Here's a scoop: Frank Palmer, traffic expert over with OIR, tells us that the Chief of Naval Personnel and the Commandant, Marine Corps, are just about to approve crash helmets as part of the uniform for men riding motorcycles and scooters. "Can you tell your readers that we highly recommend safety helmets?" asked Mr. Palmer. "Sure," we said. So—if you ride a motorcycle or scooter, why not take the advice of the experts—wear a helmet.

★ ★ ★

We understand that SecNav Franke and VADM Smedberg are interested in food. The Navy Secretary and the Chief of Naval Personnel are taking a personal interest in the Ney Awards for food service. RADM Boundy, Chief of BuSandA, now has an inter-bureau and civilian team inspecting the six Navy finalists (three afloat, three ashore), from which one ship and one station will receive the award. We'll tell you the results as soon as we can.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS

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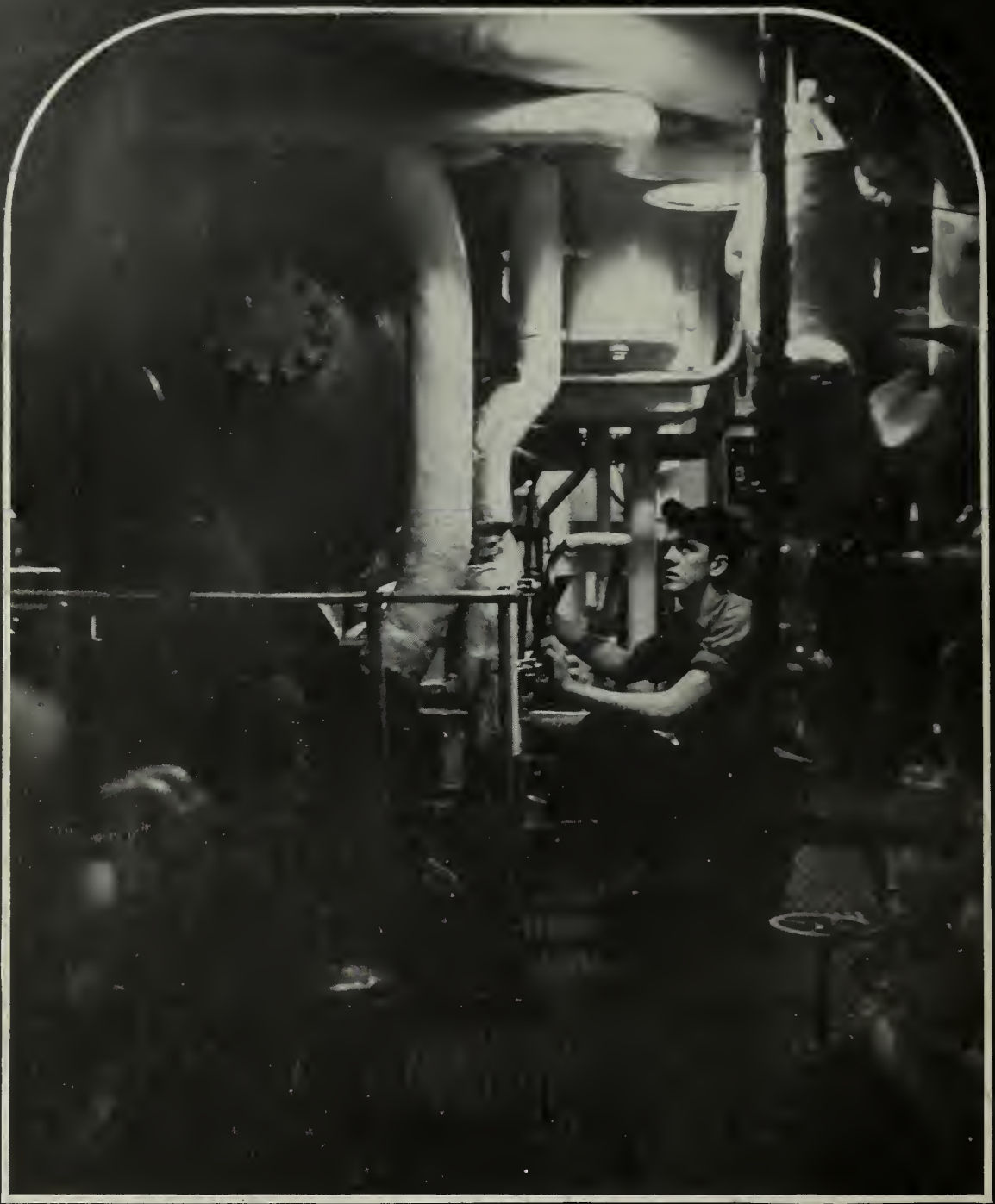
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• AT RIGHT: 'Skin Tonic'—Special division of permanently assigned side cleaners of USS Northampton (CLC 11) take pride in their claim to be sharpest division on any ship in the Navy. The ship too, is proud of this crack outfit.





man of 

RESPONSIBILITY

ALL HANDS

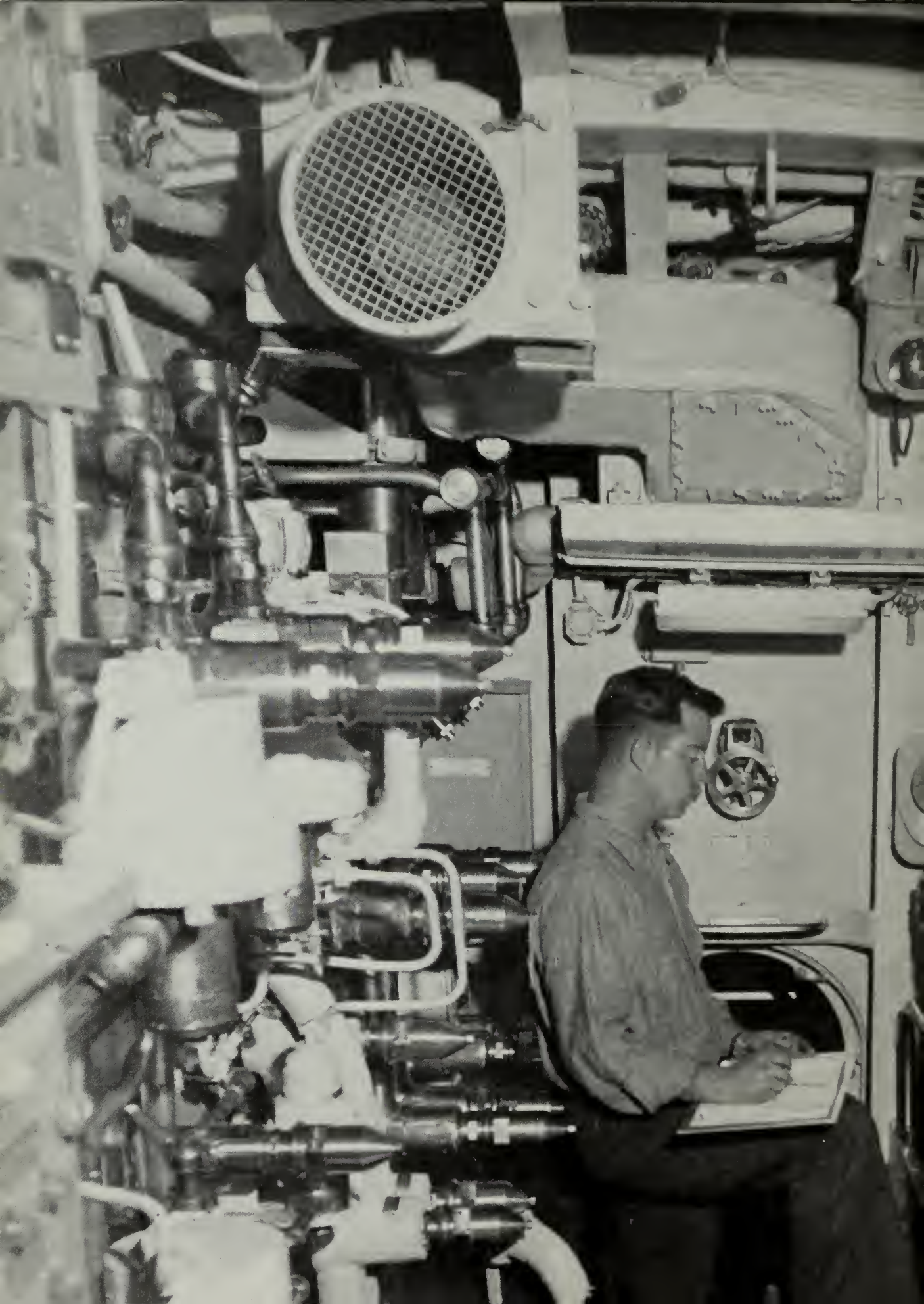


This magazine is intended
for 10 readers. All should
see it as soon as possible.

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JULY 1960



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

JULY 1960

Nav-Pers-O

NUMBER 522

VICE ADMIRAL W. R. SMEDBERG III, USN

The Chief of Naval Personnel

REAR ADMIRAL A. E. LOOMIS, USN

The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

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- AT LEFT: INSIDE AN ATOM SUB—J. B. Thomas, EM2(SS), USN, takes reactor fresh-water temperature in reactor compartment of nuclear-powered submarine USS Skipjack, SSR(N) 586, as he stands above the atomic reactor compartment.
- FRONT COVER: SILVER LINING—Crew member of small seaplane tender USS Greenwich Bay (AVP 41) enjoys the view from ship's fantail as the sun breaks through storm clouds during voyage through the Strait of Messina between Sicily and Italy. Photo by R. D. Moeser, PH1, USN.
- CREDITS: All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

What's With

WHAT WITH ALL this modernization and conversion going on, it's difficult to determine just where we stand. What's here today may be obsolescent tomorrow—or it may have a considerably long life still ahead of it.

Here's the box score on the Navy's operational and proposed missiles, based upon unclassified information in the Department of Defense:

BULLPUP is an air-to-surface supersonic missile with a range of more than 15,000 feet. About one foot in diameter, 11 feet long, weight 571 pounds, it is powered by a solid-propellant rocket system at present. Its guidance system is controlled by radio signals.

It is relatively inexpensive, highly accurate, and simple in design. With its conventional warhead, it is intended for use against comparatively small defended targets—pillboxes, tanks, truck convoys, bridges, railroad tracks, marshalling yards, and the like. It is now operational aboard USS *Lexington* (CVA 16) and is also in use by the Air Force and Marine Corps.

A new improved *Bullpup*, with a pre-packaged liquid fuel motor, is in production and is scheduled to replace the present solid-fuel type. Other improvements will include a more powerful warhead and an improved guidance system.

REGULUS I is a bird of a different feather. A ship-to-surface monster, it weighs approximately seven tons, travels about 600 miles per hour and has a range of 500 miles. It is 34 feet long, has a wing span of 21 feet, and is powered by a turbo-jet with a solid propellant booster. An electronic brain acts as a guidance system for its nuclear warhead. It is now well-nigh obsolescent, as the last *Regulus I* was produced for the Navy in 1958.

The first operational attack missile to join the Fleet, *Regulus* resembles in appearance a modern swept-wing jet fighter. One nuclear-powered sub, four conventional subs and two cruisers now in commission possess *Regulus I* capabilities.

SIDEWINDER is the baby of the Navy's new arsenal. Nine feet long, with a diameter of five inches, it weighs only 155 pounds. An air-to-air missile, it travels at supersonic speeds, has a ceiling of more than 50,000 feet and is driven by a solid-propellant rocket. It possesses a conventional warhead and is guided by an infrared heat-seeking device.

It was designed for destroying enemy fighters and bombers and finds its target by homing on the heat emitted from the aircraft.

Sidewinder is a relatively inexpensive and reliable weapon which

POLARIS, Navy's submarine missile is slated to be operational this year.



the Missiles?

has very few moving parts and no more electronic gear than an ordinary radio. As a result, no specialized training is required to handle and assemble it.

Operational in July 1956, *Sidewinder* is the most widely used air-to-air guided missile in the U. S. Fleet, and is also used by the Air Force and Marine Corps. It is the only U.S. air-to-air missile in production for use by foreign countries and also the first guided missile to have destroyed an enemy aircraft under actual combat conditions. Chinese nationalists used *Sidewinder* during the Quemoy crisis in 1958 and were delighted with it.

A new *Sidewinder* — *Sidewinder IC*—is now under development at NOTS China Lake, Calif. It will provide higher speed and greater range than the present version.

SPARROW III might be considered as a big brother of *Sidewinder*. It is about 12 feet long, eight inches in diameter, and weighs 380 pounds. Also an air-to-air missile, it travels at more than 1500 miles per hour to reach a ceiling of more than 50,000 feet. One version of *Sparrow* is powered by a solid-propellant rocket but, unlike *Sidewinder*, is guided by an electronic-controlled homing device.

Another version of *Sparrow III* will include a new pre-packaged liquid-propellant engine and will be launched by the supersonic, all-weather F4H-1 jet fighter. The new self-contained liquid engine system incorporates tankage, propellants and thrust chamber in one unit, ready for firing after assembly with warhead and airframe. It can be stored aboard ship for indefinite periods. *Sparrow III* became operational in August 1958 and replaced *Sparrow I*, which has been phased out of production.

TALOS, a ship-to-air missile, is a relatively big boy. Capable of traveling at supersonic speeds, it can attain "extremely high" altitudes, with a range of over 65 miles. About 30 feet long, it has a diameter of 30 inches and weighs about 7000

pounds including booster. Powered by a solid-fuel rocket motor for the first few seconds, it is then pushed onward by a 40,000-hp ram-jet engine. Directed by a beam-riding guidance system, it carries either a conventional or nuclear warhead.

Although primarily a ship-to-air missile, *Talos* can also be used against ships and shore bombardment targets. The principal armament of the guided missile cruiser USS *Galveston* (CLG 3), *Talos* represents some 13 years of research and development. It was first fired at sea by *Galveston* on 25 Feb 1959. In addition to *Galveston*, six additional cruisers including the nuclear-powered *Long Beach* are at present undergoing construction or conversion and will have *Talos* capability.

TERRIER is, perhaps, one of our more familiar missiles. Three guided missile cruisers, one guided missile destroyer and one guided missile frigate, armed with the missile are in commission. Three carriers, three cruisers and 19 frigates now under construction or conversion will have *Terrier* capability.

A ship-to-air supersonic missile which has greater altitude than conventional antiaircraft guns. *Terrier* has a range of about 10 miles. About 15 feet long (27 feet, with booster), one foot in diameter, it weighs about one and one-half tons, including booster. Carrying a conventional warhead, it is powered by a solid-fuel rocket motor and is guided by a radar beam-riding system.

A later model of *Terrier*, incorporating improved guidance features, is in production for both the Navy and Marine Corps. It will supersede the present weapon which has been operational since 1956.

Terrier is suitable for shipboard use or for beachhead operations. Shipboard missiles are selected automatically from the magazine and loaded on the launcher which is then automatically trained, elevated and fired.

That's the roster of the Navy's

F3H-2 FIRES salvo of Sparrow IIIs





F8U-2N Crusader carries four Sidewinders



F4D Skyray fires Zuni rocket

operational missiles. In addition, three rockets—Weapon Alfa, HVAR and Zuni—are also operational.

WEAPON ALFA (formerly known as Weapon Able) is installed on destroyer escorts and is fired from a launcher resembling a conventional gun turret. A special fire control system aims the rocket at enemy

submarines. The surface-to-underwater rocket gives destroyers greater range and latitude of attack by removing the necessity of positioning the ship in the immediate area, as is necessary with depth charges. The rocket turret can be trained in an almost complete circle, enabling a ship to fire the rocket as soon as an enemy sub is located. The rocket

sinks more rapidly and covers a larger area than the old type depth charges.

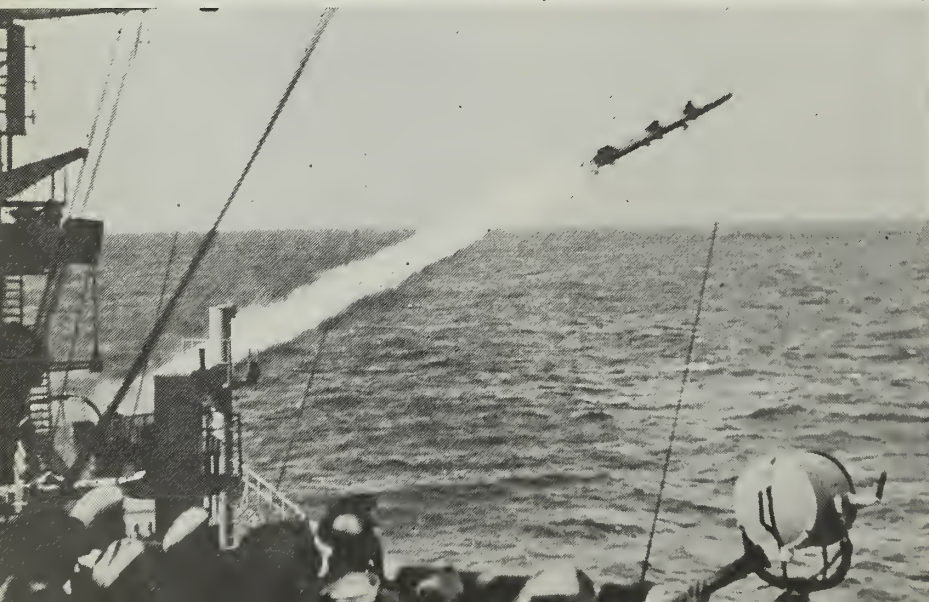
Equipped with a conventional explosives charge, *Alfa* has a length of eight and one-half feet, is slightly more than a foot in diameter and weighs about 500 pounds. Its range is variable.

HVAR (high velocity aircraft rocket) is the granddaddy of them all. A World War II weapon known as "Holy Moses" because of its powerful blast, this model has been out of production since 1955. An air-to-air rocket with a conventional warhead, HVAR travels about 1500 feet per second. It is six feet long, five inches in diameter and weighs about 140 pounds.

ZUNI was built to replace HVAR in high speed aircraft. An air-to-surface all-weather rocket used by attack type aircraft, Zuni is intended for use against tanks, pillboxes, gun emplacements, trains, motor convoys, ammunition and fuel dumps, and small ships. As many as 48 Zunis can be carried by the AD-type aircraft. The launcher, which holds four rockets, is also used for transporting and storing the rockets. The launcher can be jettisoned after firing, to increase the speed of the plane.

Slightly less than 10 feet in length, the rocket is five inches in diameter, weighs a little over 100 pounds, has a range of five miles and travels just twice as fast—3000 feet per second—as HVAR. Its conventional warhead can be armed with various

AT SEA—USS Galveston (CLG 3) fires supersonic Talos. Rt: HVAR rocket, replaced by Zuni, is seen in early test-firing.



types of heads, including flares, fragmentation and armor-piercing.

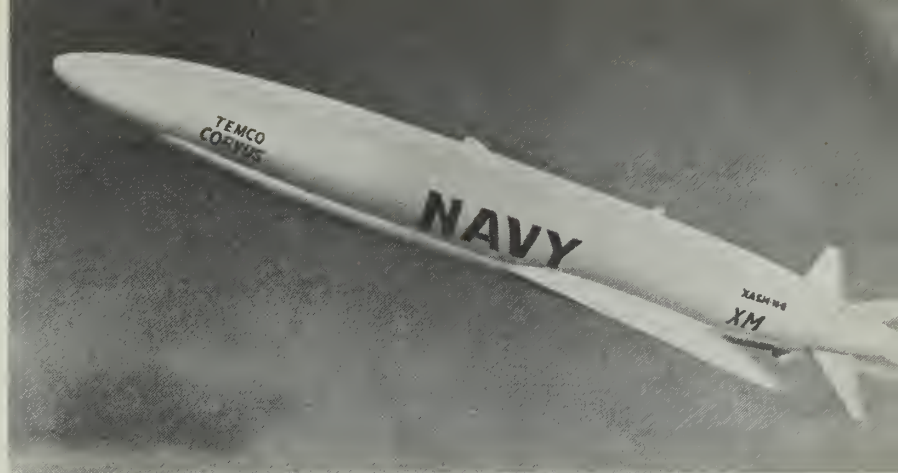
A number of new weapons are also under development. Some are at the early research and development stage; others are well into production.

ASROC, for example, is a solid-propellant rocket torpedo, fired from surface ships, projected to the target area and, upon entry into the water, becomes an acoustic homing torpedo. It is scheduled for installation aboard cruisers and destroyer-type vessels.

CORVUS is an air-to-surface weapon for use in penetrating defended areas as well as for attacks against surface ships. It is designed to permit its use on carrier-based aircraft. Equipped with a liquid-propellant rocket power system, it travels at supersonic speed with a range of more than 100 miles. Flight tests were begun at Point Mugu, Calif., in 1959.

EAGLE, now in the early phase of development, represents a new trend in air-launched guided missiles, in that the launching aircraft may be relatively slow, since the high performance will be built into the missile instead of into the manned aircraft.

POLARIS is, of course, the Navy's darling. It is a deterrent/re-taliatory missile designed primarily for launching from Fleet ballistic missile submarines, specifically designed to launch this missile. It may



Corvus will be new air-to-surface weapon



Bullpup is Navy's operational air-to-surface missile

be fired from the sub while surfaced or submerged. Launching can also be done from other types of ships or from shore installations.

The missile is ejected from its launching tube by inert gases which propel the missile above the water where the rocket motor ignites. With an initial range of 1200 miles, later

to be increased to 1500 miles, *Polaris* will be basically a projectile traveling a ballistic path through space, lifted to altitude and set on course by its original propulsion and guidance components, and then governed by natural forces, such as gravity, on its way to the target.

Sixteen can be carried on a sub.

TROUBLE BELOW—Weapon *Alfa* takes off after sub. Rt: *Tartar*, smallest ship-to-air guided missile, is test-fired.





MISSILE MAGIC—This Terrier-guided missile, launched from USS Canberra (CAG 2) was shot across International Date Line so it hit day before fired.

Present shipbuilding programs have authorized construction of nine nuclear-powered *Polaris*-firing submarines (SSBN). The 1961 budget includes a request for authorization for three additional subs and funds for long lead items for three more.

Polaris will be operational in 1960.

SUBROC is a guided missile under development for antisubmarine warfare. It is a missile fired from a submerged submarine torpedo tube, programmed through the air to re-enter the water to kill another sub. The *Subroc* system can detect a submarine at long range, compute its course and speed, and fire the missile. Capable of carrying a conventional or nuclear warhead, it provides ranges much greater than the present ASW torpedoes.

TARTAR is now in production. It is the smallest missile of the ship-to-air series designed primarily to fit on destroyer-type ships or as secondary battery on larger ships. It is effective against both low- and high-altitude targets. A supersonic missile approximately 15 feet long and slightly more than one foot in diameter, it has a range of more than 10 miles.

Equipped with a dual thrust solid-propellant rocket motor for a guidance system, the missile carries a conventional warhead.

USS *Norton Sound* (AVM 1) has been test-firing *Tartar* off the California coast for the past year. *Tartar* is programmed for 21 destroyers and three cruisers now under construction or conversion. The first of these joins the Fleet this year.

TYPHON Weapon System, now in the early research and development stage, will be the Navy's ship-to-air missile system of the future. It will take advantage of as many improvements for its components as are available. The name *Typhon* System has superseded the designation Advanced Weapon System which referred to improvement programs for *Talos* and *Tartar* missiles. Super-*Talos* has been re-named Long Range *Typhon* and Super-*Tartar* is redesignated Medium-Range *Typhon*.

And, to conclude, here's a brief roundup of rocket and missile programs which have been phased out, cancelled, or are inactive:

Sparrow I was an air-to-air missile which became operational in the Fleet in the spring of 1956 and is now phased out of production and superseded by *Sparrow III*.

Sparrow II was an air-to-air missile which was developed as an experimental missile and not intended for Fleet use.

Petrel was an air-to-surface missile, designed for use against subs and surface ships which became operational in the Fleet in 1956 but later was phased out of production.

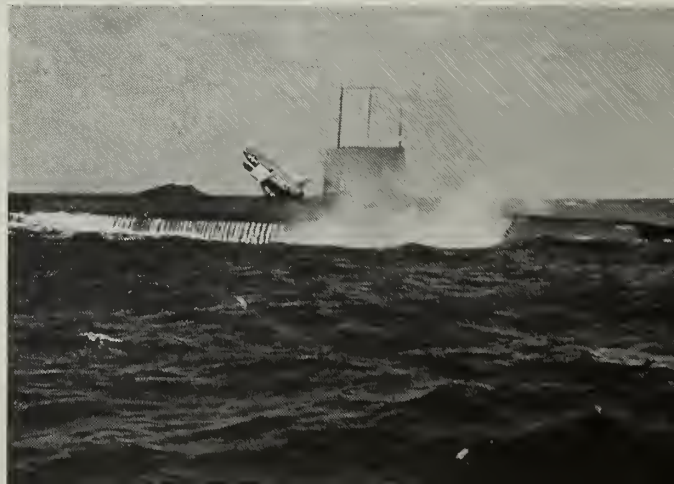
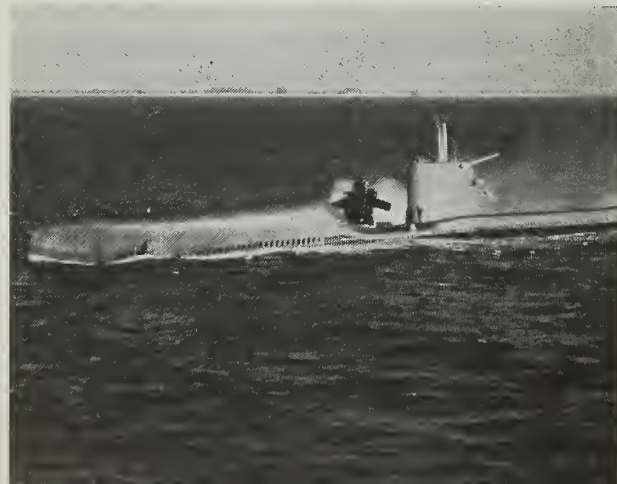
Regulus II, a ship-to-surface missile, was under production when the program was cancelled in 1958 because of the rapidly changing technology in the missile field.

Triton, another ship-to-surface missile, was cancelled in September 1957 while still under development.

Rat was a surface-to-underwater rocket-thrown torpedo which was cancelled in January 1959 because of superior antisubmarine weapons under development.

Gimlet is an air-launched rocket which has tentatively been placed in an inactive status.

SUBPAC POWER—USS *Growler* (SSG 577) and USS *Halibut*, SSG(N) 587, ready to fire *Regulus I* in Fleet exercises.



SubPac's Missile Warriors

WITH THE ARRIVAL of the nuclear-powered guided missile submarine USS *Halibut*, SSG(N)587, at Pearl Harbor, Hawaii, this spring, the defense system of the Pacific Fleet has been strengthened to include all five of the Navy's guided missile submarines. The four other formidable creatures of the deep—equipped to launch the potent, 500-mile range *Regulus* missiles—are *Growler* (SSG 577), *Grayback* (SSG 574), *Barbero* (SSG 317), and *Tunny* (SSG 282).

While the *Halibut* holds claim to being the first nuclear submarine designed specifically to carry, launch and guide missiles, the *Grayback* was constructed as the first conventional (as opposed to nuclear) missile-launching sub, followed by her sister-ship, *Growler*. The *Tunny* and *Barbero*, originally Fleet Types, were converted to missile-launching vessels.

The submarine-guided missile combination is an important segment of the Navy's powerful air, surface and sub-surface team in the struggle to maintain freedom of the seas. And for some very sound reasons: A *Regulus* surface-to-surface missile can be launched from a submarine within minutes after surfacing. The submarine can approach a target with less risk of being detected than the larger ships of the Fleet. For all practical purposes, it cannot be seen, detected by radio or radar. It can only be found by underwater sound detection.

The *Regulus* missile in itself is a small but powerful weapon. Incorporating an electronic guidance system, it is a high performance sub-



BACKING IN—Regulus I guided missile is loaded into the deck hanger aboard USS *Tunny* (SSG 282), one of SubPac's five missile submarines.

sonic jet aircraft that can carry a nuclear warhead. It was the first operational attack missile used in the Navy and has been in the Fleet since 1954. The *Regulus* can also be launched from cruisers and aircraft carriers.

The operations involving the five missile-launching subs in the Hawaiian area have been designed with several objectives. The primary concern is to develop a high state of proficiency for landing the missile on target.

During a typical operation, a submarine would launch a training missile (minus warhead) and guide it. During the flight guidance control

might be shifted to a second sub.

The controlling submarine simulates an explosion over the target by signal and transfers control of the missile to chase aircraft, which guide and land it on the Auxiliary Landing Field at Bonham on the Island of Kauai.

The aircraft, attached to Guided Missile Group One at Barber's Point Naval Air Station, near Pearl Harbor, provide chase and recovery functions for safety considerations. In the event a missile develops a malfunction, creating a hazard to land areas, shipping, or airways, these planes can guide it to a safe area and destroy it.

Because of the heavy air traffic in the vicinity of the Hawaiian Islands, these operations are coordinated with the Federal Aeronautics Administration.

The actual launching of the *Regulus* from a submarine is basically no different from the launching from a surface ship or from land; however, the submarine requires extra time for surfacing and transferring the missile from hangar to launcher. But the specially trained officers and men of Submarine Squadron One have developed a speedy coordination that enables them to do the job without delays.

The union of the submarine and the missile is a potential that is not a dream of the future. It is here today—ready to help protect the freedom-loving people of the world.

The pictures below show the *Regulus* submarine team in operation at sea. They have a potent punch—and *Polaris* is still to come.

—Bud Thomas, JO3, USN.

BLAST OFF—*Regulus I* gets JATO boost from sub until its own power will take over to speed it to distant target.





Who's Going to

ABOUT ONE OUT OF every 13 enlisted men in the Navy is authorized to wear the Navy "E"—the symbol of operational excellence.

Some of these 50,000 Navymen—distinguished by the block letter

of the crew of any one of the ships that did not win the over-all Intra-Squadron Battle Efficiency Competition, but did win one of 13 annual type commander proficiency awards. These go to gunnery or missile-launching crews, communication gangs, ASW teams, assault boat crews, or the personnel of operations, engineering or air departments that excelled all other units in their class during a full year of intra-force competition.

Just what's behind all this competition and how do these Navymen earn this special distinction?

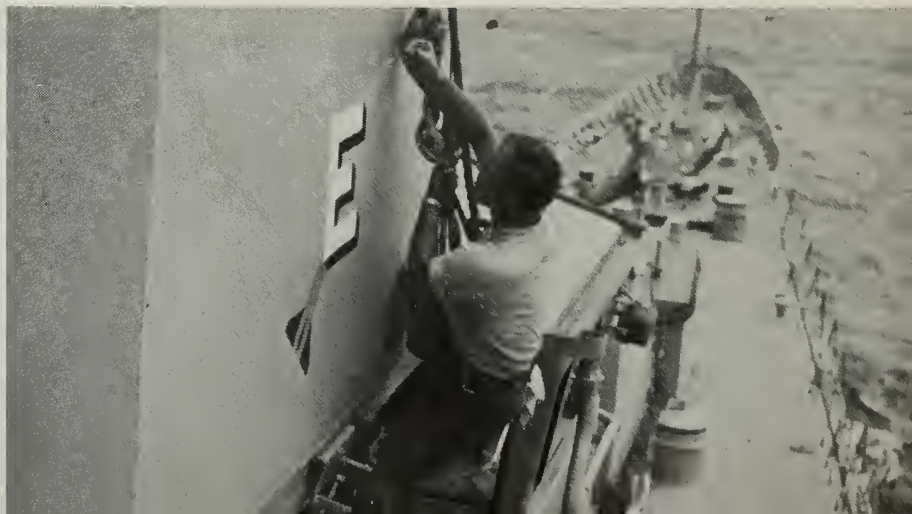
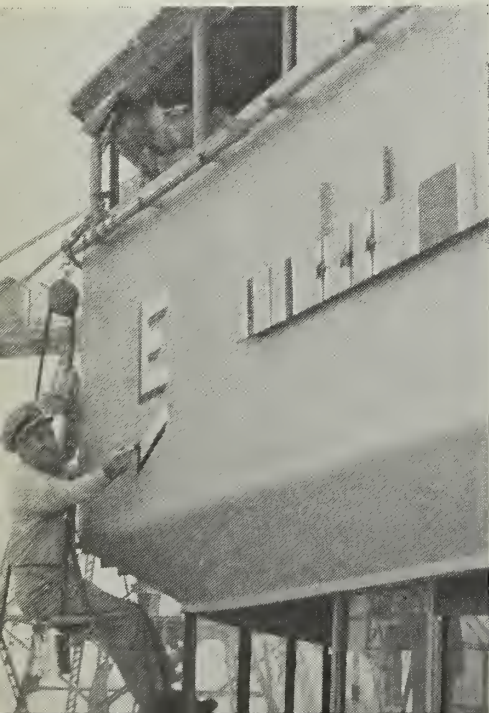
Organized competition, as we know it today, goes back to the 1880s when Commodore Stephen B. Luce, USN, commanded the U. S. Training Squadron. At that time he organized training cruises and devised war games—certain that seamen as well as officers would benefit by sham battles and competitive maneuvers.

This form of training paid off in the Spanish-American War. But observers could not help wonder what would have happened had the Navy



Echo worn on the right sleeve of the uniform—comprise the crews of the outstanding ships in both the Atlantic and Pacific Fleets which have won the Battle Efficiency Pennant.

Others may be selected members



encountered enemy forces that were properly equipped and trained. They were convinced that the results would have been much different.

Luckily, there was a person deeply concerned over the Navy's shooting eye. Reviewing the Navy's gunnery record during the Spanish-American War, LT William S. Sims, USN, was shocked to learn that, of 9000 projectiles fired during the battle of Santiago, only 120 hits had been scored by the Fleet. This was a little less than excellent.

Get the Big 'E'?

Operating somewhat out of normal channels, he risked his career by inviting President Theodore Roosevelt's attention to this unhappy situation. As a result, Sims was appointed Navy Inspector of Target Practice, a job he held for six years.

During this time, he revolutionized Fleet gunnery, influenced the design of our first all-big-gun battleship, and introduced new and improved destroyer tactics. Reforms in rangefinding, spotting and target practice were adopted.

Sims was also primarily responsible for introducing a competitive spirit among the gun crews of the Fleet. Gunnery prizes were offered, and records for all calibers were broken every year. In 1903, the Fleet average for all guns was approximately 40 per cent; in 1906, it was up to about 78 per cent. When Sims left the Target Practice Office in 1909, the U. S. Navy led the world in gunnery.

Emphasis on Fleet gunnery competition continued until World War II. Members of gun crews and turret crews were the only persons awarded prize money.

Following the war, the Chief of Naval Operations decided that training emphasis should be placed on improving the readiness of entire ships instead of individual departments. In 1947, on the basis of this philosophy, CNO established inter-type battle efficiency competition.

At the end of each competitive year, CNO would select the winners from the ships recommended by the type commanders. The ship that won this annual competition was authorized to display the Battle Efficiency Pennant and the Navy "E." Prize

money was paid to the enlisted members of the crew. This inter-type competition was conducted during fiscal years 1948, 1949 and 1950. It was discontinued when hostilities broke out in Korea.

Since the end of the Korean conflict, resumption of CNO-sponsored inter-type competition has not been feasible. In 1956, however, CNO ordered the type commanders to sponsor their own intra-type competition, and authorized the display of the Battle Efficiency Pennant and

the Navy "E" by the winning ships.

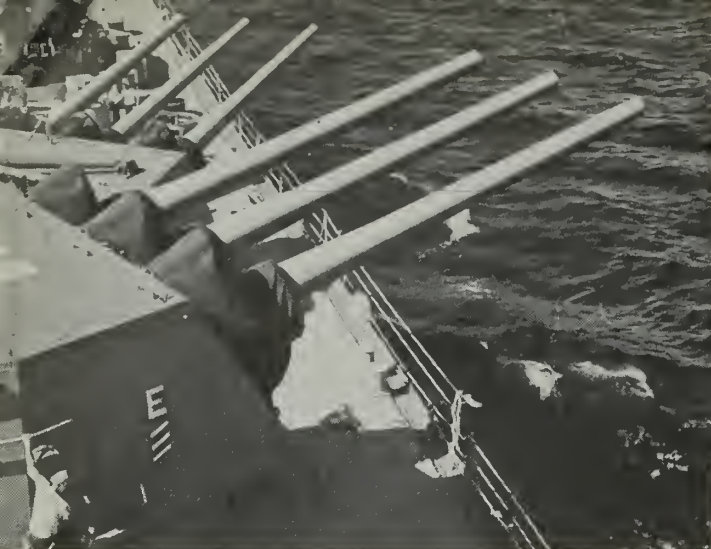
Today's competition — conducted by the type commanders — consists of an intra-squadron competition in which the ships of each squadron compete among themselves, and intra-force competition in which all ships of the same type compete among themselves.

Let's take a look at the competition conducted annually by the Atlantic and Pacific Fleet Destroyer Force commanders.

In the intra-squadron competition, the ships of each destroyer squadron and each escort squadron form a single competitive group and compete with each other. This Battle Efficiency Competition runs from 1 July to 30 June of each fiscal year. It is carried out under the general direction of the force commanders (COMDESLANT and COMCRUDESPEC) and under the general guidance of the commander of the flotilla to which the squadron is assigned (DESFLOT 2, 3, 5, etc.).

The squadron commander is the Officer Conducting Competition (OCC) for each competition group. All ships must complete certain required exercises in gunnery, engineering and damage control, air defense, CIC and communications operations and antisubmarine warfare. The required exercises for all DD, DDR, DDL and DDE types, for example, include drills in surprise air attacks, AA target designation and acquisition, long- and short-range gunnery practice, full-power and smoke-prevention runs, two economy trials at speeds of 15, 20 or 25 knots, over-all communication performance, aircraft control and interception, damage control during an atomic





Excellence in Gunnery



Excellence in Communications

attack, and single and dual ship ASW action.

In addition to these exercises, each ship is marked on over-all seamanship and navigation, including the training of junior officers in ship-handling; as well as general smartness, cleanliness and shipkeeping ability displayed during the entire year. These factors are considered a part of over-all battle efficiency.

The OCC submits graded reports on each of the competitive exercises to the force commander, who determines the final official standings for each competitive group in the intra-squadron battle efficiency competition. The winners of this annual competition are usually announced in August of each year.

The ships winning the intra-squadron battle efficiency competition are authorized to display for one year, the *Battle Efficiency Pennant* and the white *Efficiency "E."* This is painted on both the port and starboard sides of the bridge bulwark.

In addition, the force commander

may also present a suitably engraved bronze plaque to each of the winning ships. This plaque becomes the permanent property of the ship and is usually mounted on the quarterdeck or other appropriate place for the benefit of the ship's crew.

The commanding officers of the ships that win the intra-squadron competition usually receive a letter of commendation from the force commander and each enlisted member of the crew is authorized to wear the Navy "E" as part of his uniform while serving in the winning ship.

The enlisted men assigned to the ships that win this year's battle efficiency competition, which ends on 30 Jun 1960, will receive a free set of seven "E's"—one of appropriate color for each coat, jumper or blouse as required by current *Uniform Regulations*.

In addition to the awards for over-all excellence determined through intra-squadron competition, all ships of the Fleet are eligible for recognition within their respective type

commands by excelling in intra-force competition.

Competition on the intra-force level is based on excellence in:

- *Gunnery*—The White "E" is awarded to the individual mounts and crews of three-inch and larger guns; three-inch rapid fire guns; 40mm and smaller guns; and control parties of primary surface directors and surface torpedo batteries that score a merit of 100 per cent in specified exercises.

- *Antisubmarine Warfare* — The White "A" is awarded upon achieving a total score indicating excellence in certain ASW exercises.

- *Surface-to-Air Missile Systems* —The White "E" is awarded to units completing required missile and air defense exercises with an average merit of 95 per cent on all non-firing exercises and 95 per cent on three-fourths of the firing exercises conducted during the competitive year.

- *Engineering*—The Red "E" is awarded to those ships achieving a

Excellence in Minesweeping



Excellence in Assault Boat Operations





Excellence in Engineering



Excellence in CIC Operations

total score indicating excellence in required engineering casualty exercises, engineering trial performances and fuel performance ratios.

- *CIC Operations*—A Green "E" is awarded to those who excel in required CIC exercises.

- *Communications*—The Green "C" is awarded for excellence in required communications exercises. No major communications operational discrepancy nor major cryptographic violation is permitted.

- *Minesweeping*—A White "M" is awarded to minesweepers that receive a final grade of either Excellent or Outstanding on the Operational Readiness Inspection; have had no major discrepancies noted on the minesweeping trials conducted before the ORI; and completed all the mine countermeasure exercises required by the type commander's training and competition instructions with no grade lower than good and an over-all average of excellent.

- *Assault Boat Operations*—The Assault Boat Insignie is awarded to

landing craft that score 90 or better in boat control, debarkation, unloading exercises and beaching tactics.

- *Air Operations*—A Yellow "E" is awarded to the Air Departments that achieve a total score indicating excellence upon completion of required air department exercises and a final grade of Excellent or Outstanding in ORIs.

The "E" insignia will be displayed by each ship that excels in competition during the periods established by type Commanders.

Chapter 19 of *BuShips Manual* spells out in detail the size, location and painting specifications for each efficiency insignia.

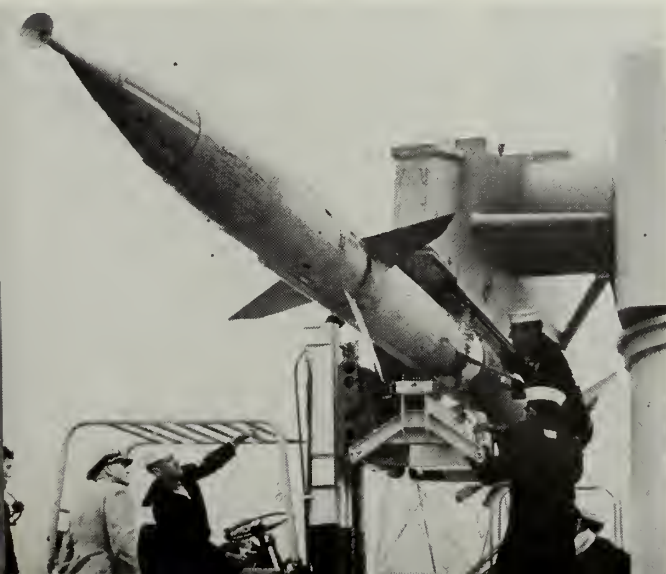
The "E" can also be part of the Navyman's uniform.

Enlisted personnel assigned to the mounts, crews or shipboard departments that win any of the 13 intra-force awards listed above may be authorized by their respective type commander to wear the Navy "E." It's a real sign of excellence.

—H. George Baker, JOC, USN.



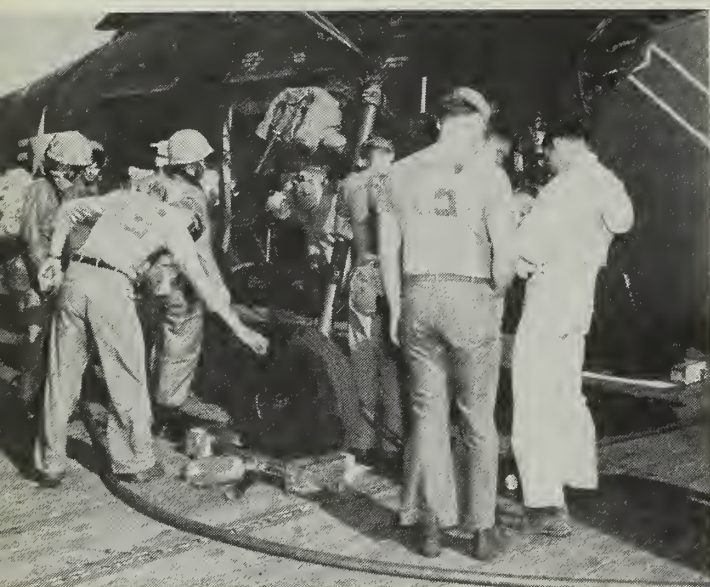
Excellence in Antisubmarine Warfare



Excellence in Surface-to-Air Missile Systems



Excellence in Air Operations

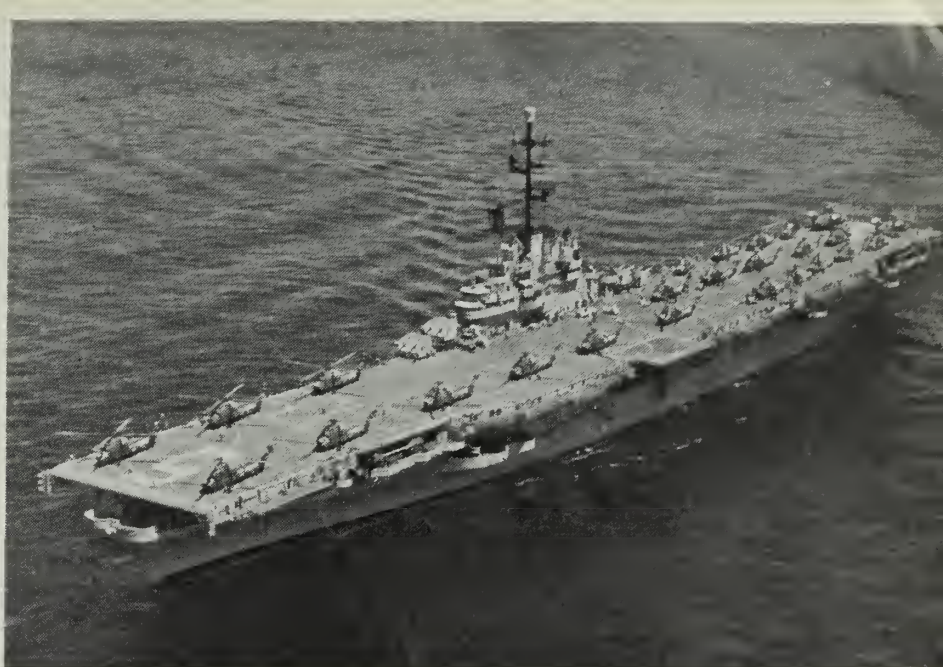
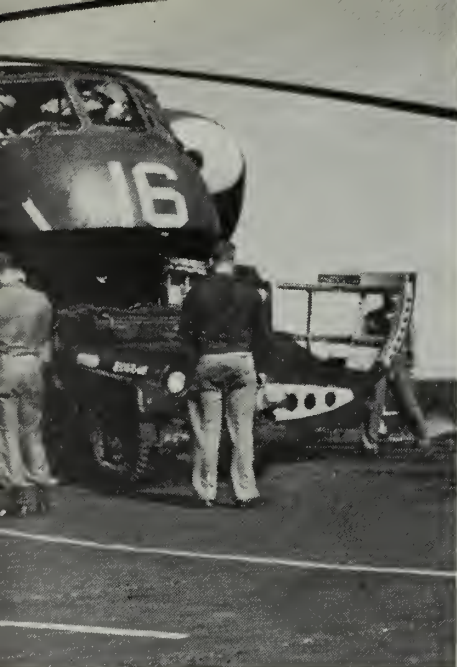


Amphibious

Uss *Princeton* (LPH 5), a name well known in the Fleet's operating forces, is now serving with the Seventh Fleet as an Amphibious Assault Ship after having been converted from an ASW carrier.

Princeton's prime purpose is to carry troops and helicopters for use in vertical envelopment assault operations. To do this her ship's complement, unlike that in most Navy fighting ships, is two-thirds Navymen and one-third Marines who are integrated into the ship's various departments. During exercises *Princeton*-based copters rise from the flight deck to deliver assault troops and equipment behind enemy lines as part of the vertical envelopment theory in amphibious assault. In this theory helicopters capable of any direction of flight as well as hovering take-offs from the ship with troops and fly over the fortified beaches to land Marines who will attack the enemy from the rear, seize critical points, cut enemy supply lines and sever communications.





Assault Ship

uss *Princeton* (CV 37) was originally named *uss Valley Forge* but when her predecessor (CV 23) was sunk *Valley Forge* still under construction was renamed. *Princeton* was commissioned in 1945 and in 1953 designation was changed from CV to CVA. *Princeton* next served with the Antisubmarine Warfare forces as a CVS until assigned the latest job as a LPH with the Pacific Fleet Amphibious Forces.

Clockwise from upper left: (1) Equipment is secured to copters for lift to beach. (2) Jeep is loaded for trip to shore. (3) *uss Princeton* (LPH 5) prepares to launch copters. (4) Marines roll artillery piece aboard *Princeton*. (5) Marines move out from cat walks to board whirlybirds. (6) Assault area receives another delivery from *uss Princeton*. (7) HR2S helicopters keep equipment and troops dropping into assault area behind enemy lines. (8) Copter is refueled by Navy gas crew as Fleet Marines board for next flight to shore.





NAUTICAL-MINDED—Norwegians have a great natural interest in the sea. Here, highline transfer takes place to DD.

NORWAY'S NAVY

WHEREVER THE SUN SHINES, you can bet it will shine on a Norwegian flag. You can even bet that the quarterdeck watch of a Norwegian navy ship will have the sun shining in their eyes during the mid-watch.

You would win both bets. Here's why: Norway has the third largest merchant marine in the world. Norwegian maritime ships visit practically every major (and minor) port in the world, and are constantly on the move. Next time you enter a port, whether it be in the Med, out in Asia, down in Africa, way down in Australia, or South America or

Stateside—look around, and the odds are that one or more of the ships you see will be of Norwegian registry, flying the Norwegian flag.

The odds are, also, that serving in the something around 10 million tons and 2600 ships of the Norwegian merchant marine are officers and men who have served or will serve in the Royal Norwegian Navy.

WHY WOULD the men on midwatch have the sun shining in their eyes?

One of the duty stations of Norwegian naval ships is off the North Cape (Nordkapp). It's pretty far

north—the same latitude as off Point Barrow on the northern tip of Alaska—and, from the middle of May to the end of July, the sun doesn't set.

Norway is divided into five naval districts: Southeast; South; West; Central, and North. North Cape is in "Naval District North." Trondheim to the Arctic Circle is "Central." Norway, in short, is pretty far north itself. As a result, ships of the Norwegian Navy are sometimes in for some rugged duty.

It's a small navy—about 4000 officers and men on active duty, with about 58 active ships. The destroyer-type is the largest in the Norwegian navy. Their NATO task is to support approaches to Norway. "Our main task," said one senior officer, Captain Andr. Stang, RNoN, "is to provide naval support for northern Norway."

Norwegian sailors who visit Naval District North see some interesting scenery. They pass areas where tidal bores come out at 35 knots. They pass—not too closely—the famous Maelstrom, near the Lofoten Islands.

FRIGATES like KHM Haugesund (F 312) provide naval support for Norway.



ALL HANDS

They view hundreds of fjords and thousands of islands. They go ashore with medical supplies, when needed. They sometimes play soccer, up beyond the Arctic Circle, as part of their shore liberty.

These visits are in support of the Norwegian fisheries and fishermen.

WITH THE NAVY, the merchant marine and the fishermen, it seems as though almost every male Norwegian is a sailor. "Our king is a sailor, too," they'll tell you, "and so are most Norwegian men."

Potentially, therefore, Norway has a large navy. There is a distinct tie-in with the merchant fleet. Most of the men serve two years before the mast in the merchant marine before they become sailors, and serve their 18 months of National Service. All merchant marine masters and chief engineers have started at the bottom. So have the naval officers. They serve a year and a half before the mast and then go on to the Norwegian Naval Academy.

The backbone of the Norwegian navy are the six-year career enlisted men who train for petty officers. Many of them go on to a commission. To get a commission, they go to the Academy for three years and come out as sub-lieutenants. Then, after two years' postgraduate work, they are promoted to lieutenant.

Boot camp is at a station called "Harald Haarfager"—a name well known to you if you've read up on Norway. It's located at Stavanger. Two other training stations are at Horten and Bergen. Bergen will, from the fall of 1960, also become the site of the Naval Academy.

IF YOU'VE HAULED out a chart by now, to look up these place names, you'll see that everything is way up north.

Look for Bodo, near the Arctic Circle. That's almost "Central." Ships going farther north, around to Nordkapp, go for a three-to-six-month tour. Then they head south for fishery-inspection duty, control-of-shipping duty—and training. Chances are, then, that a man who has served in the Norwegian navy has a few things he can tell you about snow, ice, fog and dangerous navigation—even if you've been to Thule or Antarctica, Point Barrow, or—under the Pole.

Counting the training cycle, duty in the Norwegian navy is half sea and half shore, approximately. At

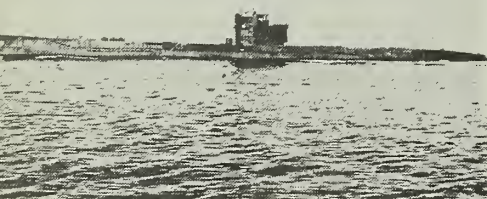
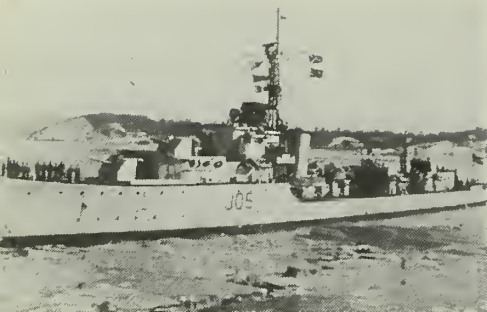


FUTURE GUNNERS—Norwegian sailors receive instruction in gunnery at Horten Training Center. Below: Nordic Navymen in training pull whale boat.



FLEET MINESWEEPER KNM *Glomma* (M 309) cruises along Norway's coast.





DES. KNM Stavanger (top) and sub KNM Kya are typical Norwegian ships. Below: DD men stand quarters.



SOUND OFF—Norwegian petty officer drills recruits at boot camp. Norway's navy has three training centers located at Stavanger, Horten, and Bergen.

sea, it's small-ship duty—some of the best training there is in real seamanship for all hands.

The Norwegian Navy has destroyers, frigates, submarines, minesweepers, minelayers, depot ships, landing craft, repair ships, and two ex-frigates used as weather ships.

Also, as you would guess, they have motor torpedo boats. The Norwegian naval architects have developed a new class of MTB called the "Nasty" class—68-ton, 80-footers—with a speed in the neighborhood of 40 knots. They are wooden, twin-shaft, and diesel-powered.

KNM NORGE, the royal yacht, was purchased by the Norwegian people for their late king, Haakon VII. The present king of Norway,

King Olav V, is their "sailor king," and is very close to the sea and ships. He has often visited foreign naval ships, and takes a keen interest in the navy and merchant marine. King Olav V was one of the first to go on board USS *Skate* when she arrived in Norway after her famous crossing under the icecap.

As yet, Norway has no icebreakers. A great deal of their long coast is kept warm (relatively, that is) by the Gulf Stream.

With the many fjords and islands of their coastline, you can make one further bet—the Norwegian ships and crews have many chances to exercise their seaworthiness and seamanship—both world-famous.

It's a shipshape and seamanlike navy, down the line.

RUGGED COAST and icy water make men like this MTB crew sharp sailors. Rt: Seaman at radio school takes a break.





HELLO INDIA—Navymen on liberty visit park in Bombay. Rt: Carriermen spell out 'Namaste,' an Indian greeting.

A Visit to India

AS NAVYMEN from four U.S. ships passed through the massive arch at the fleet landing in Bombay, India, they noticed the inscription read "Gateway of India" and at the end of their five-day visit, all agreed that it was also the gateway to good liberty.

The men from *USS Bon Homme Richard* (CVA 31), *USS Valcour* (AVP 55), *USS Morton* (DD 948), and *USS Hamner* (DD 718) saw many strange and interesting sights as the old Far East mingled with the present. Ox carts jammed the streets as automobiles honked to pass and natives in ancient dress

mingled with people in modern attire of the western world. The sailors visited Kamala Nehru, a beautiful park overlooking the city, as well as the hanging gardens of Bombay and shopped in the cities' many bazaars.

COMCRUDESPEC's band and that of COMCARDIV One gave concerts nightly throughout the city. Visits and sporting events were held between the U.S. Navy and Indian Navy and when it came time to up anchor, men of both navies had a better understanding about each other's country and their sea service on different sides of the globe.



SOUVENIRS are purchased and sights of Bombay are visited. Above: Fleet landing is called 'Gateway to India.'



JULY 1960





Camping Out with Lorac

THE TERM Lorac isn't one that you will find in the dictionary, but to the officers and men of the Navy's Lorac Support Team Seven, home-based at Pearl Harbor, it is the rugged, he-man, outdoor type of duty that counts and the definition is secondary.

According to the U. S. Navy's definition, Lorac is a "hyperbolic phase-comparison system of radio navigation." The name is derived from the initial letters of the words Long Range Accuracy. The system makes it possible to determine the position of a ship or aircraft by comparing the phases of radio signals received from at least three independent, but co-ordinated shore-based transmitting stations whose positions are known. Meaning simply that Lorac is a long-range naviga-

tional aid for ships sailing the high seas.

In addition to Lorac, the Support Team also operates Shoran (*SHOrt RANge Navigation*) and EPI (*Elec-tronic Position Indicator*), both supplementary navigational aid stations.

Working out of Pearl Harbor under the operational control of Commander, Hawaiian Sea Frontier, the team is deployed periodically to various areas in the Pacific Ocean in connection with the Pacific Missile Impact Location System. Most of the time, the station sites are bleak, inhospitable, almost inaccessible and populated chiefly by insects and a wide variety of birds.

The team usually operates with an LST which is assigned as support ship for operations in the field and for transporting the tons of equip-

ment utilized in the operation.

Placement and back-loading of Lorac team station equipment at isolated island or reef locations is effected by U. S. Marine-manned amphibious tractors with U. S. Navy helicopters acting in a supporting capacity.

The helicopters off-load light equipment and serve as personnel lifts. In case of medical or personnel evacuation from an isolated station, a helicopter is always ready for immediate deployment to the area.

Helicopters are also used for all-important mail delivery and the hauling of supplies to the various camp-sites.

While deployed in the field, Lorac Support Team Seven is normally split up into six separate camp-sites, each of which is a completely self-

HOME ON THE RANGE—LORAC team sets up camp tents and off-loads supplies on an isolated Pacific island.





sufficient unit. Each unit has four tents, usually two sleeping tents, a galley and messing tent and one equipment tent.

The tents are 16 by 16 feet, of the pyramid type. Sheets of plywood are used for flooring. The men assigned to the camp use cots with rubber air mattresses and sleeping bags.

Each camp has an electric refrigerator and an apartment-size gas range equipped with butane burners for cooking.

Communication and power-generating equipment is carried in each camp, as well as general-purpose tools for work about the camp and special tools and test equipment for the maintenance of the electronic gear.

Equipment requirements of an individual camp range from the necessary electronics equipment involved, to a simple can opener; the electronics equipment itself being only a small part of the total.

Each camp has a one-and-a-half-ton water trailer (400 gallon capacity) to supply water for cooking, drinking and bathing. The "water buffalo" is a vital part of each camp-site or station.

Preservation of food and water, as well as storage and economical use in the intervals between supply trips, sometimes presents a major problem—one that the men of Lorac Support Team Seven have learned to solve without difficulty.

Enlisted personnel in each camp normally perform duties in accordance with their ratings, although whenever the camp is being established or being disestablished to move to another location, all hands,

including the cook, work side by side until the camp is once again in an operating status.

A chief petty officer is usually in charge of each camp. He is responsible for the installation and proper functioning of the unit in his charge.

The officer-in-charge of Lorac Support Team Seven normally makes his headquarters at the most centrally located camp in the Lorac network. In remote areas, he may locate his headquarters aboard the support ship in order that he may expedite communications and logistic support.

The assistant officer-in-charge, an electronics officer, is a sort of roving troubleshooter for the team within the entire camp network.

He acts as the technical adviser on network operations as well as supervising the overhaul and upkeep of equipment.

A limited amount of recreational equipment is supplied to each camp.

However, since each camp has an average of six men and the camps are usually widely dispersed, the men rarely have an opportunity for any organized recreational activity.

Most of the men become very adept at swimming and skindiving and some even become avid beach-combers.

Discomfort and hardship are almost automatically associated with Lorac Support Team Seven in the field, but according to the officer-in-charge, Lieutenant Jerry T. Middleton, USN, you very seldom hear anyone voice any dissatisfaction with the team or ruggedness of the duty.

Just ask for a volunteer for any job and regardless of the task, you're likely to have the whole team volunteer.

This amply describes the spirit of the officers and men of Lorac Support Team Seven — rugged and ready!
—Ken Orr, JO1, USN.

NOTHING ATOLL—When pulling duty on desolate Pacific islands LORAC team members often find old gun emplacement the only thing to write about.



Black Dog: the Tale of a Hound

From time to time in these columns we've made reference to Black Dog—to us, one of the most interesting characters we've encountered. Here are the details of his career, by one who knew him much better than anyone on the staff:

IN HANGAR FIVE at the Naval Air Station, Lakehurst, New Jersey, beside a roped-off portion of concrete that is designated as the ZP-3

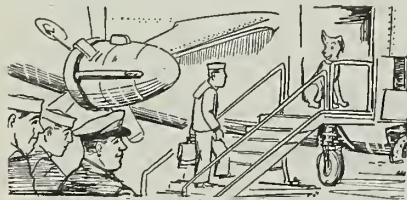


quarterdeck, stands a small gravestone with the following inscription: "BLACK DOG, 1939-1957, A Good Shipmate."

To many officers and sailors of Airstrip Squadron Three, the installation of this stone created a great deal of curiosity, since the men who knew Black Dog are now scattered throughout the Navy. Only a few remain to tell his story.

It all started back in 1944 when a small ugly dog decided to join the Navy. At Fishers Island, New York, outside New London harbor, was stationed a detachment of Navy "G" type airships. Since sailors are inclined to adopt stray dogs, ugly or not, this homeless mutt was taken into the outfit.

He had short hair which was black on his head and back, and fawn colored on his chest and belly (when he was clean). He walked on four bow legs and had a whip-like, almost hairless tail. One ear was split



and flopped over, while the other stood erect. He was about the size of a small boxer or bulldog. His age could only be judged by his Navy battle scars. He looked as though he had walked into a turning propeller and survived.

A singular thing about him was

his complete independence. He certainly knew his way around, and he never failed to turn up at the right place to be fed, or to be taxied to his next destination by the proper vehicle. He liked enlisted men. He was completely indifferent to officers, chiefs and civilians.

Details of Black Dog's life at Fishers Island, and later at Airship Patrol Squadron 12 in South Weymouth, Mass., by this time, are somewhat vague. It is known that he made occasional airship flights and became an expert ground handler. For those who don't know what a ground handler might be, it is best explained that they are the men who tend the lines of an airship during landings and take-offs. In many cases they used to pull a "light" airship literally right out of the sky. Black Dog was always the first to grab the bitter end of the line and the last to let go of it.



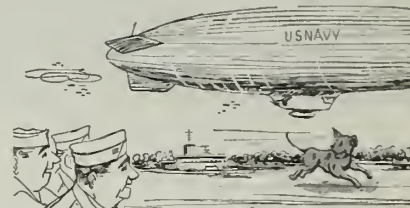
To some this was a source of amusement—to others he was a nuisance. However, Black Dog was always there, tugging on his portion of line. In summer or winter, night or day, in rain or snow, if you were end man on a line you could always feel the downward tug of a growling dog.

During take-offs, after the ship had made headway down the mat, Black Dog would always drop his line and run between the two dragging shortlines until the airship took off over his back. Th's action was so regular that a new boot in the squadron believed that Black Dog was showing the pilots the upwind direction off the mat.

Once, however, he was hit in the back by a ship's wheel which caught up with him before becoming airborne. It is believed that this was probably the first of many visits that Black Dog paid to the veterinarian. However, it didn't stop him from the practice. He simply swerved to one side during future take-offs as

soon as the airship caught up with him.

At the end of World War II Black Dog traveled to Lakehurst, N. J., when the men of ZP-12 were transferred. They took up residence in Hangar Five which was to be Black Dog's home for six years. ZP-12 decommissioned and became ZP-2. It was from this time that the exploits



of Black Dog can most accurately be told.

He only left the hangar to ride the van to the chow hall and when he was bodily taken away from some reason. He rarely rode the van back to the hangar after chow, but chose to visit his lady friends or fight some high-ranking Navyman's dog on his walk back to the squadron.

However, he was seldom absent for any great length of time. He usually slept on a coil of line or on a pile of old canvas blower sleeve, during the day. At night he liked to patrol with the security and pressure watches, and hunted rats. This required that he visit the vet regularly for rabies shots.

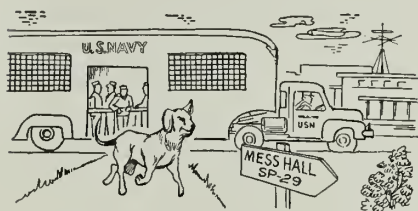
That's how the Black Dog hospital fund got started. It was maintained by the ZP-2 Leading Chief. The men contributed enough so that his future medical expenses might be paid. It ran to \$30 or \$40 at times.



He never failed to delight the men while hunting a rat or mouse. Sometimes he would get excited and start running on the slippery floor so fast his legs would be moving but his body standing still. It wasn't unusual for him to run full tilt into

a wall in his efforts. After he chased a rodent into a hole, he was known to sit there for hours, waiting for it to come out again.

Another peculiarity of his was to chase tin cans when thrown at him.



He loved to push one over the hangar deck with his nose, and bark at it continuously. It would become necessary to take it away from him to keep him quiet.

At no time was the word passed over the hangar public address system for the duty section to muster, without Black Dog's appearing with the men. They often called him by name to come to the duty desk and pick up his night rations which usually consisted of a ham sandwich. Many sailors tried to fool him by calling at unscheduled times just to see if he would appear. They were successful once or twice, but he soon knew when the call was in earnest.

He was a familiar sight at Personnel Inspection, standing with the Leading Chief or following the Captain through the ranks. None of these personality quirks was encouraged by the men. No one was ever able to teach him anything. He simply learned those things he considered important. He never cottoned to any particular sailor for any length of time, and generally showed complete indifference to those who went out of their way to be friendly to him.

Once, nobody knows when, Black Dog ran under a "K" ship propeller and had the tip of his tail very neatly clipped off. Most animals



would never have gone near a ship after that, but not Black Dog. This merely meant that he could run under props any time now that he was cut down to size.

He once demonstrated an undog-

like intelligence by begging a sailor for walnuts, which the sailor had packed in his lunch pail. Everybody knows that dogs don't eat walnuts. However, the sailor finally relented and gave the dog a handful of nuts. Black Dog proceeded to toss the walnuts up in the air and let them crack open on the concrete floor, then he picked out the meats and ate them.

For several years at Lakehurst, Black Dog faithfully manned his duty station for ground handling. He was often seen running ahead of a ship in snow up to his stomach. He was out there when it was so cold he stood on three legs just so he could keep one in the air and not put it on the icy mat. The same principle applied in the summer when the mat was too hot for his thick paws. Someone once made the mistake of locking him in one of the hangar shops so he wouldn't go out in the cold. He scratched and tore his way through two thicknesses



of sheetrock and sped out to the landing ship. Nobody tried that again.

In August of 1951, ZP-2 got orders to go to NAS Glynco, Georgia, for duty. As the last ZP-2 airship was crossing the hangar sill to fly south, the radioman from Aircrew 203 climbed out of the ship and grabbed Black Dog and put him aboard. They had their picture taken then, which still appears in ZP-2's squadron history.

At the beginning of that flight, Black Dog went forward to the radio compartment and lay down under the navigator's table. Ten hours later when they landed at Glynco, Black Dog was still under the table, behaving himself. Before the ship was even on the mooring mast, he was handed down the ladder and turned loose. He wasn't seen again until chow time when he showed up at the mess hall just as though he had always lived there.

By this time Black Dog was getting along in years by dog standards. His actual age was figured at 12 years, which multiplied by seven

gave him a comparable age to man of 84 years old. He didn't appear much different except that he began to lose his teeth. Consequently he often ended up second best in fights he started but couldn't finish. Black



Dog often went to the vets to be patched up after being ripped by well-toothed, more fortunate dogs.

A sailor took him home one time just to let him rest on a warm rug for a change, and let him run on soft grass. He didn't last for more than one night. The sailor finally caught him trying to cross the St. Simons Island bridge to get back to the squadron. No one attempted to put him out to pasture again.

One night the ground handling party was lined up on the field in the typical V formation, waiting for an approaching ship to land. Out ahead of the party where the crew would eventually have to run, Black Dog set up a loud yelping and barking. The chief in charge ran over to him to put a stop to his noise. When he directed his light on Black Dog, there on the mat in front of him, lay a six-foot water moccasin. There isn't a sailor in that party who wasn't grateful to that black mongrel for being there that night.

In general, all of these incidents are but a build-up to the most spectacular event in Black Dog's life. Late at night during the hurricane season, the squadron received orders to deploy away from Glynco out of the path of an approaching hurricane. One by one the airships took off and headed away to their de-



ployment area. In one of the ships, a pilot just happened to be using the spot light in the cockpit to shine on the ground below.

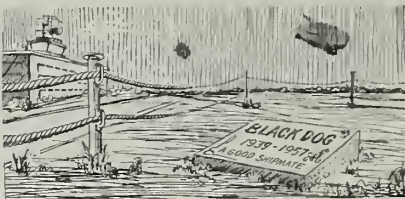
It was about three fourths of an hour after take-off. The pilot noticed

that only one short line dangled back toward the airship car as the forward momentum of the ship carried it back. He aimed the spotlight on the nose of the ship and followed the other line straight down. There was Black Dog, hanging head down from the end of the line, with it wrapped completely around one hind leg.

A message was sent back to the base reporting the fact, along with a request to return to base in order to save him. The commander of the squadron, after weighing the situation carefully and considering the anxious men in the squadron, allowed the airship to return to drop Black Dog. They made a low pass over the field while a truck with men standing in the rear chased the ship and grabbed the dog in their arms after overtaking the line that

dangled from the moving air ship.

When Black Dog was released he had been airborne for an hour and seventeen minutes. He was still alive. The pads on his free paws had been worn to the bone where



he had scraped them on the gravel mat during the take-off. He seemed more dead than alive.

He was rushed to the animal clinic and stayed there for two months until all his wounds finally healed before he was returned to the squadron.

However, his ground handling days were over. From the time he returned from the hospital, the aging dog was restricted to the hangar during airship operations.

This action was taken with the best of intentions and was in the nature—more or less—of an honorable retirement, but it just about broke Black Dog's heart.

He went through the motions of his routine hangar life, but his friends could see that he no longer carried on with his old verve and love of life. For a dog who had lived his best, as he saw it, old age was just one more enemy that he could not whip.

When he died in 1957, the men of ZP-2 felt the loss so much that they donated enough money to buy him the stone mentioned earlier. He was laid to rest beside the entrance into the ZP-2 hangar. In his life, 18 actual years, or 126 dog years, he had been a constant companion and inspiration to the men of lighter-than-air.

Many still remember the large barrel chested, homely, ragged-eared mutt that seldom paid you the compliment of licking your hand, but who held the admiration of all. You couldn't pet him without getting grease on your hands, and yet he was never expelled from the presence of the men he followed for being dirty. He was a faithful companion to all, and though he lived a long life, it was by no means an easy life.

When ZP-2 decommissioned in September of 1959, the last captain of ZP-2 decided that his stone should be shipped to Lakehurst where the only remaining airships of the Navy are based. On the concrete pedestal under the stone is a large plaque with the following inscription:

Though Black Dog's remains be interred at Glynco, Georgia, his headstone is placed on his old quarterdeck to perpetuate his memory in lighter-than-air.

On 19 Nov 1959, Commodore Klein of Airship Wing One, based at NAS Lakehurst, rededicated Black Dog's headstone in an unveiling ceremony, before the personnel of the two remaining LTA squadrons.

Such were the life and times of Black Dog—a good shipmate.

—ENS C.E. Aldrich, USN

Navy Roster of Famous Mascots Included Pete and Agnes

Black Dog is not, of course, the only mascot to have been immortalized in the pages of ALL HANDS.

Consider Pete, for example, the monkey mascot and pride of Landing Craft Unit Division 11, back in 1957. The delight and personal property of LCU 1481, Pete took his first step as a member of the ship's company by a complete physical which was, his sponsors claim, undoubtedly one of the longest in naval history. The exam was delayed by difficulties when the corpsmen tried to pin Pete down for his shots. His teeth were also in excellent condition, as a Navy dentist discovered when he failed to pull his fingers out of Pete's mouth in time.

Pete established something of a reputation as a gourmet. He ran through the menu from shoe polish, soap, shaving cream and paint. He discovered that paint didn't agree with little monkeys. Neither, oddly enough, did he care for bananas.

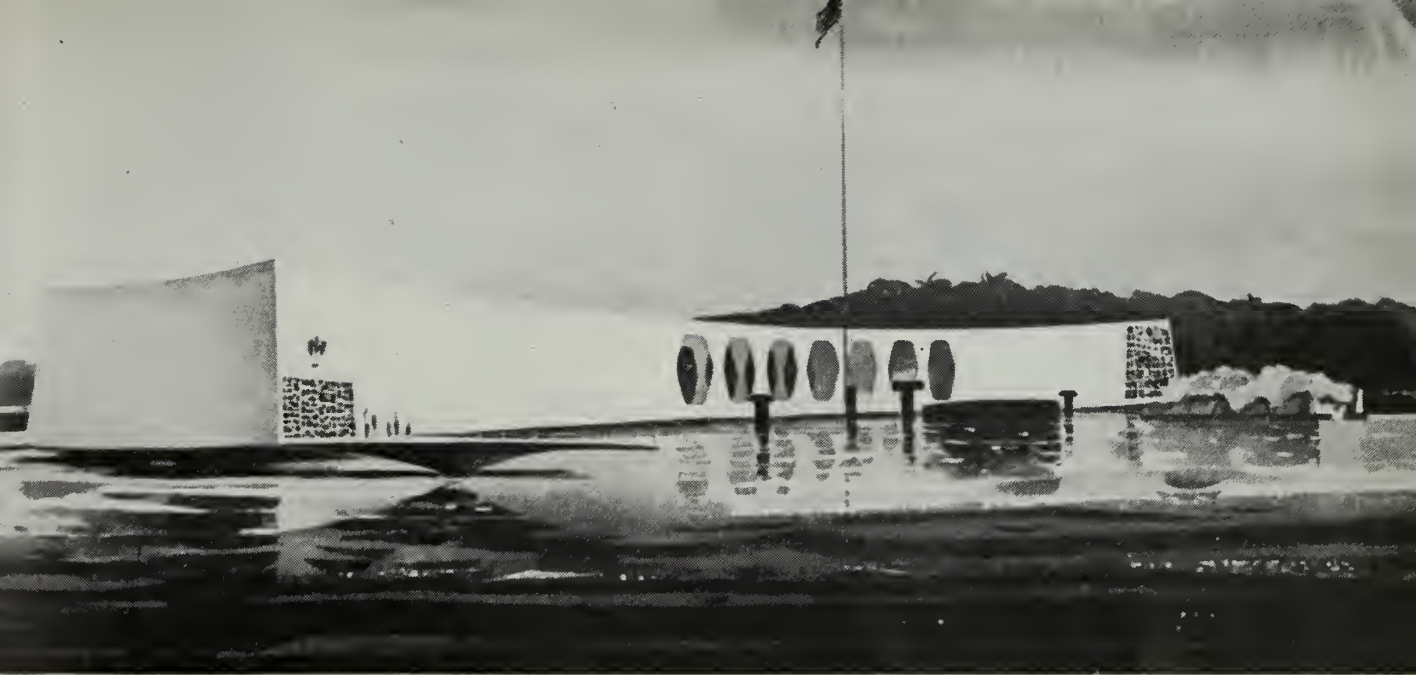
A well-traveled monkey, Pete

had by the time we heard of him, visited Okinawa, Formosa, Korea, Japan, Wake Island, Hawaii and Hong Kong. While on operations, he would set himself up on the conn.

When the ship moored, he would usually be found at the gangway where, the crew insists, he was better than any sentry or watchdog. In Yokosuka, when Pete found a yardman working in the ship's magazine, he let out screams that were heard from one end of the ship to the other. He recognized anyone in the uniform of the day, but trusted no one in any other kind of outfit.

Then, for a regrettably short time, there was Agnes, the pride and love of UDT One. Agnes was a seal. Until she caught the flu, Agnes had been the mascot of the Coronado-based frogmen of the Pacific Fleet Amphibious Force. We couldn't think of a more appropriate mascot for a bunch of frogmen and neither could they. She has retired to the San Francisco zoo.





HERE'S HOW the new USS Arizona memorial will look when it is finished as it spans the sunken battleship's hull.

New Arizona Memorial Is Underway

THE CREW OF USS Arizona (BB 39) may have a new memorial at Pearl Harbor before the end of 1960.

The final construction plans and specifications for the memorial have been completed and the construction contract is to be awarded in the near future with tentative completion of the memorial scheduled before 7 Dec 1960.

At that time, the memorial will rise above the hulk of *Arizona* as a shrine for the 1102 men who went down with her on 7 Dec 1941.

The structure will be of light-

weight concrete, supported on prestressed concrete girders. It will stretch 186 feet from the outboard side of *Arizona* to the inboard side of Ford Island with cantilevered ends projecting outward.

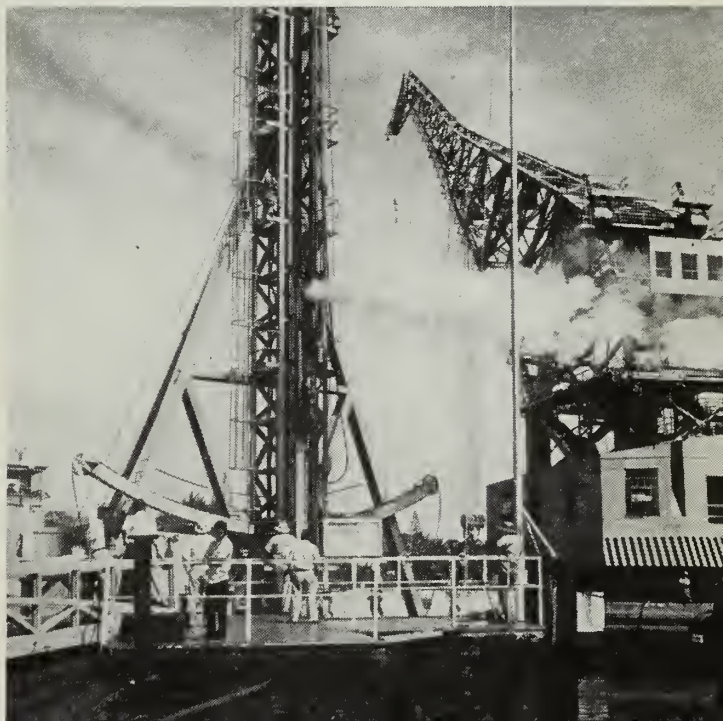
An 18-foot round opening, illuminated with under water lighting will be set in the deck adjacent to the shrine area for viewing sunken portions of the ship.

The memorial will house an assembly area for flag-raising ceremonies large enough to accommodate 200 persons, a museum containing

salvaged mementos of *Arizona*, and a plaque on the end wall of the shrine inscribed with the names of the 1102 men entombed in the vessel. They were among the first American heroes of WW II.

Visitors will enter the memorial from two boat landings projecting from the harbor end of the structure. Swinging doors attached to fixed grilled panels will permit access to the memorial itself. The present concrete mooring blocks on the Ford Island side of ship will be used for landscaping purposes.

ON THE WAY—Navy men view USS Arizona from present platform. Rt: First pilings are driven for new memorial.





WHAT'S HAPPENING — Native children of Balakbak Province in Philippines are examined by Navy doctor.



GONE NATIVE—LT C. R. Harper, MC, USN, advises a patient. Below: Overflow waits turn at a jungle office.



Country Doctor

THERE ARE NOT MANY country-doctor-type billets in the Navy, but LT C. R. Harper, MC, USN, at the U. S. Naval Air Station, Cubi Point, P. I., has one.

Every six weeks he and his assistants, M. B. Dumlao, HM2, and L. L. Fears, HN, leave their "city" office and take a trip into jungle-covered mountains to visit and treat natives of the mountain province of Balakbak. The doctor's visit supplements the monthly one made by a Philippine government doctor.

Most of the people of Balakbak are Christians, and farmers. In the valley where they live, they grow rice, bananas, beans, pineapples, oranges, carrots, cabbage and lettuce. They produce all the food they need for themselves and a little extra to sell for clothes and other necessities.

Sanitation facilities are inadequate, and the natives are very susceptible to sickness. Mainly, they suffer from tuberculosis, intestinal parasites, and goiter. Doctor Harper's job is not only to treat the people, but also to try to teach them ways to prevent disease, mostly by cleanliness and proper diet.

During a typical visit to the province, Dr. Harper inoculates about 200 children against tetanus, diphtheria, whooping cough and typhoid. He also inoculates adults against typhoid.

After all the children have received their shots, he goes to the dispensary and holds sick call. There he examines and treats the people for various diseases and injuries with medicine donated by the U. S. Navy. He gives his patients whatever medicines he has brought with him. If a particular medicine isn't available, he writes a prescription which can be filled at a small cost by the Philippine circuit doctor.

On the last night of the visit, which usually extends over a week-end, the people of the Province gather at the house where Dr. Harper stays, and put on a square-dance party. (The natives were taught to square dance by missionaries.)

In the morning, as the medical team is leaving, almost all the villagers turn out to say goodbye. Some 200 miles of rough roads later, the Navy group returns to base.

All about Advancement

It's TIME for those advancement in rating examinations once again and your chances for promotion are about as good as—if not better—than ever.

The opportunity for advancement and the added pay, responsibility and prestige that go along with it, are practically yours for the asking. That is, if you have fulfilled all the requirements and pass the examination with a high enough score.

You should know by now that the Navy does not simply hand out that crow or added stripe. You must qualify and be eligible for them.

Since this is the case, let's take a look at your individual responsibilities regarding advancement.

Basic Eligibility

To begin, there are certain requirements that you and every other Navyman—regardless of rate or rating—must fulfill before you can even participate in the Navy-wide examinations for advancement in rating. To be eligible, you must:

- Be recommended by your commanding officer.
- Complete all of the required practical factors.
- Complete the required Navy Training Courses.
- Complete performance tests, if required.
- Successfully complete service school, if required for the particular pay grade or rating.
- Fulfill service requirements, both time in service and time in pay grade.
- Be in the proper path of advancement.

Let's take a more detailed look at each of these seven elements which comprise your eligibility to compete for advancement.

Recommendation by Your Commanding Officer

This is the first requirement for advancement in rating. Recommendations are not given as a matter of routine to every Tom, Dick and Harry. They are well considered and given only to those who have the ability to perform the work and carry the responsibilities of the higher rating. In case of candidates for petty officer grades, particular consideration is given to the qualities of leadership and personal integrity.

The commanding officer's recom-

mendation for advancement must be recorded on page 13 of your service record. This recommendation may be withdrawn at any time before actual advancement. If it is withdrawn, a service record entry must be made.

Practical Factors

These are described as the skills and abilities required for advancement in rating which can best be demonstrated by performance. Practical factors are listed for each rating in the *Manual of Qualifications for Advancement in Rating* (NavPers 18068, revised).

Methods of completing practical factors are prescribed in Article C-7201, *BuPers Manual*; while Article B-2326 outlines the methods for maintaining records of completion of practical factors.

You should make it a point to check the practical factors, both military and professional, that are required for your rating and be sure that you can accomplish them.

Navy Training Courses

These are formal courses based on the qualifications for each Navy rating. The current edition of *Training Publications for Advancement in Rating* (NavPers 10052-H) lists the publications for all ratings.

You must complete the Navy training courses for your individual rate or rating that are marked with

an asterisk (*) in the current edition of *Training Publications for Advancement in Rating* (NavPers 10052-H).

It will be to your advantage if you really concentrate on studying these training courses as well as the other courses and publications listed for your rate or rating. They are used as source material for preparing the examinations.

There are two methods by which you can complete a Navy Training Course. The first is by demonstrating that you understand the material in the course book by passing a locally prepared and administered test. Secondly, by completing with a passing grade the enlisted correspondence course based on the Navy Training Course.

Some enlisted correspondence courses are applicable to a single pay grade, while others apply to two grades. Completion of a single-grade correspondence course based on either a single- or two-grade Navy training course satisfies the requirements for one grade only. Satisfactory completion of a two-grade course satisfies the Navy training course requirements for both grades.

Navy training courses covering military requirements for petty officers in all grades have recently been revised and reissued in two

MOVING UP—Passing exams leads you to step up advancement ladder.



ALL ABOUT ADVANCEMENT

volumes. You must complete the current editions of these training courses in order to be eligible for advancement to all petty officer grades. These publications are *Military Requirements for PO 3 & 2* (NavPers 10056) and *Military Requirements for PO 1 & CPO* (NavPers 10057). Enlisted Correspondence Courses—ECC 91206 for PO 3 & 2 and ECC 91207 for PO1 & CPO—are available.

If you have successfully completed a course of instruction at a Class A service school, or the equivalent, you will be credited with satisfying the requirements for completion of a Navy training course for petty officer third class (E-4).

Certain Fleet and special schools have been authorized by the Chief of Naval Personnel to assign striker designations to graduates of their courses. Therefore, personnel who have a school-assigned striker identification are considered to have met the training course requirements of the applicable rating for pay grade E-4.

Successful completion of a Class

B service school may be considered as satisfying the requirements for completion of the training course for PO1.

The satisfactory completion of a Class A or B school DOES NOT, in itself, satisfy the practical factor or performance test requirements for advancement in rating. However, you may complete these requirements and have them recorded in your record while attending a service school.

Performance Tests

Tests are required for certain ratings as outlined in the *Manual of Qualifications for Advancement in Rating* (NavPers 18068, Revised). If a performance test is required for your rating you must successfully complete it before you will be permitted to take the Navy-wide examination for advancement in rating.

Performance tests are administered by local examining boards. These boards are usually composed of two or more officers in the larger commands and only one officer in the smaller commands where candidates are few in number.

Performance tests are normally administered at least once each quarter, but commanding officers may schedule performance tests more often if local conditions demand. Detailed instructions for the administration of performance tests are contained on the cover page of each individual performance test.

Performance tests are scored on a pass-fail basis at the command level and the results entered in the enlisted service record on the administrative remarks page (page 13). The score you receive on your performance test DOES NOT count as part of your final multiple. (see page 35.)

Required Service Schools

Only personnel qualifying for six rates are now required to attend service schools to be eligible for advancement. They include PR3, DT3, MNCA, MUCA, AGCA and PT3. Personnel qualifying for these rates must attend the appropriate Class A, B or Fleet School in order to meet the eligibility requirements for advancement.

Path of Advancement

You can only be promoted to the next higher pay grade in the rate that is in the proper path of advancement in relation to the rate held as shown in the Table on the Enlisted Rating Structure in the *Manual of Qualifications for Advancement in Rating* (NavPers 18068). (See chart on page 32.)

The only exceptions to the prescribed normal path of advancement apply to personnel attending schools where the course of instruction is intended to qualify them for change in rating and for certain ratings in the conversion program which are specifically authorized by BuPers.

All active duty Reserve personnel, except TARs, in pay grade E-3 and above, may be advanced only in and within Emergency Service Ratings in those ratings where ESRs are established.

In those ratings in which selective emergency service rates or service ratings have been activated, regular Navy and TAR personnel will be advanced only to the activated selective emergency service rate or service rating. Advancement of these regular Navy and TAR personnel to the pay grade higher than the one at which the selective emergency service rating is activated will be in the related general service rating or general rating. (See box on page 29.)

Changes in Advancement-in-Rating Procedures

To keep pace with the changing times, the Navy's advancement in rating procedures have also been revised and brought up-to-date.

Although no major changes have been made in the Navy's basic advancement policies, certain long-standing procedures have been changed to take advantage of modern test scoring and processing equipment installed at the Naval Examining Center. These changes include:

- Commanding officers are authorized to order examinations direct from the Naval Examining Center rather than via convening authorities. (This procedure was initiated in the August 1959 examining period.)

- Convening authorities are not required to stock spare examinations. (This was initiated for the August 1959 exams.)

- Source information on recommendations and multiple computations must be submitted one month before the examination date. (Initiated for August 1959 exams.)

- Punched card answer sheets replaced the old "mark sense" answer sheet. These cards were used

for the first time during the August 1959 exams. (See page 20 of the July 1959 issue of ALL HANDS for an illustrated report on the new punch card answer sheets.)

- Electronic Accounting Machine cards were introduced as source documents for advancement in rating recommendations and multiple computations. This new form was distributed to all ships and stations during April 1960. This card (NavPers 624, Revised 1/60) replaces the old Report of Examination for Advancement or Change in Rating Form (NavPers 624).

- Requests for delayed examinations must be submitted within one month of date of examination. (This system was also initiated for the August 1959 exams.)

- The date for completion of eligibility requirements, except time in service and time in pay grade, is specified as one month before the date of examinations. This coincides with the date of submission of recommendation for advancement.

All of these changes were announced in BuPers Inst P1430.7D.

Enlisted women may be advanced only to and in the following rates and ratings and, in the case of personnel in the Naval Reserve, to the related emergency service ratings:

Rates	Ratings
SA, SN.....	ET, IM, OM, PN, RM, CT, YN, DM, MA, SK, DK, CS, SH, JO, LI
AA, AN.....	AT, AC, AG, TD, AK, PH
HA, HN.....	HM
DA, DN.....	DT

Foreign nationals serving on active duty in the U. S. Navy may be advanced only to the following rates and ratings, and, in the case of personnel in the Naval Reserve, to the related emergency service ratings:

Rates	Ratings
SA, SN.....	BM, CS, DK, MU, SH, SK
AA, AN.....	AB, AK
FA, FN.....	BR, BT, EM, EN, IC, ML, MM, MR, PM, SF
CP, CN.....	BU, CE, CM, EO, SV, SW
	UT
HA, HN.....	HM
DA, DN.....	DT
TA, TN.....	SD

Methods of changing from one path of advancement to another in equal pay grade are set forth in BuPers Inst. 1440.5C (Subj: Changes in Rate and Rating) and in Article C-7213, *BuPers Manual*.

Entries should be made in your service record certifying that you are eligible to participate in the advancement in rating exams. Such entries should include your CO's recommendation, record of completion of required training courses, practical factors and performance tests.

In case of advancements requiring completion of a service school, evidence must be verified by your service record, or by an official certificate.

Check Your Service Record

It is your responsibility to see that you meet all of the required elements for advancement and you should personally check your service record to see if the appropriate entries have been made. You can do this during the annual verification of records or by making a special visit to the personnel office.

If entries have not been made in your record, you should contact your division and I & E officers and ask them to initiate action to have your record brought up to date.

To be eligible to compete in an advancement in rating examination, you must fulfill all of the requirements—except time in service and time in pay grade—at least one



EFFORT REWARDED—Ship's CO congratulates men who have been advanced. Check the requirements for your rate to be sure you're ready for that exam.

month before the examination.

Time in service and time in pay grade must be completed before the terminal eligibility date. (The terminal eligibility date is defined as the 16th day of the third month following the month in which examinations are held, that is, 16 November for the August examinations and 16 May for the February examinations.

Time in Grade

The minimum service requirements for advancement in rate or rating, as specified in Article C-7204, *BuPers Manual* are:

Pay Grade	Service Requirements
E-1 to E-2...	No specified time for advancement; may be effected upon completion of recruit training; otherwise four months' naval service.
E-2 to E-3...	Six months in pay grade E-2.
E-3 to E-4...	Six months in pay grade E-3.
E-4 to E-5...	12 months in pay grade E-4.
E-5 to E-6...	24 months in pay grade E-5.
E-6 to E-7 (acting)...	36 months in pay grade E-6.
E-7 to E-8...	48 months in pay grade E-7, and minimum total service of 11 years, eight years of which must be enlisted service. Also must be a CPO, permanent appointment.
E-8 to E-9...	24 months in pay grade E-8, and minimum total service of 13 years, ten years of which must be enlisted service.

Determination of service for eligibility is made according to the fol-

lowing definitions and computation procedures:

- *Service for eligibility for advancement* is defined as active naval service, or inactive naval service as a member of a drilling organization. Naval service includes service as USN-I, USNEV, USNR, USN, and for the period 7 Dec 1941 to 1 Sep 1946, USCG and USCG-R.

Active naval service for eligibility for advancement is defined as full-time service with the Regular Naval Establishment or full-time service on active duty basis with the Training and Administration of Naval Reserves (TARs).

Inactive naval service for computation of advancement eligibility is defined as service in the Naval Reserve as a member of a drilling organization.

Continuous service for purposes of eligibility for advancement is defined as service in current enlistment plus those preceding enlistments in any category of naval service listed above provided that no period in excess of three months has occurred between discharge and subsequent reenlistment and provided that no period in excess of three months of inactive naval service was performed in a "non-drill status."

Computing Service

In computing service in pay grade for eligibility for advancement, count



GOOD START—Navymen eager for promotion check-out training books.

all active service performed in present or higher enlisted pay grade under continuous service conditions except in case of persons that were reduced in rate because of disciplinary action. Count one-half of in-

active service as a member of a drilling organization performed in present or higher enlisted pay grade under continuous service conditions. Active service under continuous service conditions in present or higher enlisted pay grade prior to administrative reduction in rating (i.e., to enlist USN from USNR) may be counted for eligibility.

In computing total active service for eligibility for advancement, count all active service whether or not under continuous service conditions. Count one-half of inactive service as a member of a drilling organization whether or not under continuous active service condition.

Time not served between discharge and subsequent reenlistment cannot be counted as service in any computations of eligibility for advancement. Time not served by reason of confinement for more than one day as the result of sentence of any court martial cannot be counted.

Service is computed in years and months. Periods of less than one month, when totaled, may be con-

sidered on the basis of 30 days being equivalent to one month. A remainder of 16 days or more will be counted as an additional month.

Personnel who have been reduced in rate for disciplinary action or for incompetency may not count service in present or higher pay grades, performed before reduction as fulfilling service in pay grade requirements for eligibility for advancement. Time served in present or higher pay grade before reduced to a lower pay grade does count in computing total active naval service required for eligibility and in computing total service credit in the final multiple.

Eligibility for advancement after reduction in rate or rating as the result of disciplinary action must be re-established from date of reduction. It should be noted that time served in present or higher pay grade prior to such reduction may not be counted toward eligibility for advancement. (See Article C-7212, *BuPers Manual*.)

Personnel who have voluntarily accepted a reduction in rate for the

Changes in Quals for Advancement May Apply to You

There have been a number of recent changes in the eligibility requirements for various rates and ratings. Here's a summary of them:

• To Pay Grades E-8 and E-9—

The revised issue of the *Manual of Training Publications for Advancement in Rating* (NavPers 15002-H) specifies the new training courses for the military requirements for both pay grades E-8 and E-9.

Because of insufficient time before the August 1960 exams for personnel competing for these pay grades to complete these courses, completion is waived for the mandatory training courses for the August 1960 examining period. These courses will be required for subsequent examinations. However, this material will be used in preparing the August 1960 exams and you should study the training manuals, training courses and other training publications listed in NavPers 10052-H.

BuPers Inst. 1430.11B—which has been incorporated in BuPers Inst. P1430.7D—established obligated service requirements for Master and Senior Chief Petty Officers. Personnel selected for advancement to E-8 must, before accepting advancement, agree to

remain on active duty for two years from date of advancement to Senior Chief Petty Officer, provided this obligated service is completed before 30 years of service.

The requirements for three years' obligated service for personnel selected for E-9 was included in the rating authorization letters issued by the Chief of Naval Personnel in October 1959.

Personnel selected for E-8 and E-9 are now required to pass a physical examination before accepting their promotion to Senior or Master Chief Petty Officer.

• *Qualifications for Yeoman*—BuPers Notice 1440 of 31 Mar 1960 announced that personnel in the Yeoman rating would no longer be required to take and transcribe dictation, nor would they be required to take the stenography performance tests. Examinations for August 1960 will contain questions on mailman qualifications within the Yeoman ratings.

• *Military Requirements for Pay Grades E-4 and E-5*—BuPers Inst. 1430.7C—which was recently cancelled by BuPers Inst. P140.7D—specified that completion of the *General Training Course for Petty Officers* (NavPers 10055) would

fulfill the requirements for the mandatory training course *Military Requirements for Petty Officer 3 and 2* (NavPers 10056). This provision is extended to include the August 1960 examining period only.

• *Alternate Path of Advancement for Enginemen Trained in Nuclear Propulsion*—Recent action has changed nuclear submarine allowances to include the Machinist's Mate rating. Enginemen trained in nuclear propulsion are also filling some Machinist's Mate billets in the surface nuclear propulsion program.

To place these men in the proper billets, authority is granted for Enginemen or EN strikers in pay grades E-5, E-4 or E-3, holding a BuPers assigned NEC of nuclear power plant operator to compete for advancement to EN or MM.

Those authorized to compete in the alternate path of advancement must have completed the required training courses, practical factors and performance tests for the alternate rating.

In each case of personnel competing under this authority, the NavPers 624 submitted must indicate in the lower right corner, "ALT PATH OF ADV AUTH BY BUPERSNOTE 1418."

purpose of enlisting in the regular Navy are required to compete in Navy-wide examinations for re-advancement, but the time previously served in present or higher pay grades under continuous active service conditions may be counted toward both total service and service in pay grade for eligibility.

Personnel reenlisting in regular Navy under broken service conditions in a pay grade lower than that in which discharged must fulfill time in rate requirements for eligibility from the date of your reenlistment.

Preparing for Advancement

Examinations for advancement in rating are prepared by the U. S. Naval Examining Center, Great Lakes, Ill. They are based on the qualifications outlined for each rating in the *Manual of Qualifications for Advancement in Rating* (NavPers 18068, revised).

The *Quals Manual* is the book to check insofar as qualifications for advancement are concerned. It supplements certain parts of the *BuPers Manual* and is designed to:

- Provide standards for advancement in rating of all Navy enlisted personnel and insure uniformity of standards among petty officers.
- Aid in the administration of an orderly and equitable promotion system.
- Indicate the course of development within a career field.

In addition, the *Manual* serves as a guide for:

- Enlisted personnel preparing for advancement in rate or rating.
- Preparation of service-wide advancement in rating examinations and locally prepared advancement in rate examinations.
- Preparation of training courses, publications, on-the-job training programs, and school curricula.

The current edition of the *Manual of Training Publications for Advancement in Rating* (NavPers 10052-H) lists the training courses and study guides applicable to each rating in the Navy. These training courses and study guides serve as a working list of material to study in preparing for advancement in rating, as well as the source of questions used in the Navy-wide examinations.

New study guides are made available to all ships and stations when significant changes are made in the *Qualifications Manual*. In ratings which have selective emergency

These Terms Bothering You? Here's What They Mean

The following definitions of terms pertain to advancement in rate. It may be worth your while to check on their meanings.

• **Navy Enlisted Rating Structure**—A classification of Navy enlisted occupations or ratings. Ratings are designated under the 1947 rating structure as general service, emergency service, or exclusive emergency service; and under the 1957 rating structure as general service, or emergency. In addition there are general apprenticeships. All of the foregoing have been classified into occupational groups.

• **Occupational Group**—A broad classification of occupationally related ratings.

• **Rating**—A name given to an occupation which requires basically related aptitudes, training, experience, knowledges, and skills.

• **Rate**—The term is used in two senses: A rate identifies personnel occupationally by pay grade. Within a rating, a rate reflects levels of aptitude, training, experience, knowledges, skills, and responsibility. The rating of Boatswain's Mate (BM) is reducible to the rates of master chief boatswain's mate, senior chief boatswain's mate, chief boatswain's mate, boatswain's mate first class, boatswain's mate second class, and boatswain's mate third class.

In its second meaning the term "rate" refers to an individual in one of the general apprenticeships such as seaman, airman, fireman, construction man, hospitalman, dentalman, or stewardman.

• **General Service Rating**—A job family which encompasses a group of jobs related on the basis of common aptitudes, skills, and knowledges. This is the type of rating held by Regular Navy personnel in peacetime.

• **General Rating**—Reflects qualification in all aspects of an occupational field. *It is similar to and will replace the general service rating.* It is applicable to both the regular Navy and the Naval Reserve.

• **Emergency Service Rating**—A job family which represents a segment of a parent general service rating. This is the type of rating held by most members of the Naval Reserve and to which regular Navy personnel will be shifted in time of mobilization as directed by the Chief of Naval Personnel.

• **Service Rating**—Reflects qualifications in some aspect of an occupational field (general rating), and provides specialization where deemed desirable. *It is similar to and will replace the emergency service rating.* It is applicable to both the regular Navy and the Naval Reserve.

• **Exclusive Emergency Service Rating**—A classification of specialized occupations activated in time of national emergency and under conditions of full mobilization. It is designed to fit recruits having specialized skills and knowledges into the wartime Navy with an absolute minimum of technical training. These ratings are not identified in the peacetime Navy, however, some of the functions of certain of these ratings are performed by enlisted personnel as collateral duties. Example: Fire-fighter.

• **Emergency Rating**—Reflects qualification in a civilian skill which is not identified in the peacetime Navy but required to be identified in wartime. *It is similar to and will replace the exclusive emergency service rating.*

• **Military Requirements**—Those general qualifications applicable to all enlisted personnel irrespective of rating. Candidates for advancement in rating are expected to demonstrate, as well as pass successfully a service-wide examination on, the qualifications as a minimum for advancement to specific pay grades.

• **Professional Qualifications**—Minimum professional or technical qualifications required of enlisted personnel to perform properly the duties of a particular rating or rate.

• **Practical Factors**—Qualifications which include minimum skills and abilities required for advancement and which can best be demonstrated by performance. Practical factors also form the basis of questions contained in the service-wide examinations.

• **Examination Subjects**—Qualifications which include the minimum

(Continued on next page)

Definitions of Terms on Subject of Advancement

(Continued from preceding page)

knowledge required for work performance and can most accurately be determined by means of a written examination.

- **Knowledge Factors**—Qualifications which include knowledges which are necessary for or auxiliary to the proper performance of practical factors. Every effort has been made to eliminate duplication of the practical factors and knowledge factors.

- **Pay Grade**—Refers to the levels established by legislation for pay and allowances purposes. Ratings and rates are reducible to equivalent pay grades; Master chief petty officer—pay grade E-9; Senior chief petty officer—pay grade E-8; chief petty officer—pay grade E-7; petty officer first class—pay grade E-6; petty officer second class—pay grade E-5; petty officer third class—pay grade E-4; seaman—E-3; seaman apprentice—E-3; seaman recruit—E-1.

- **Advancement in Rating**—An increase in pay grade within a rating. Example: Quartermaster third class to quartermaster second class. (Advancement in rate refers to an increase in pay grade within a rate. Example: Seaman recruit to seaman apprentice.)

- **Change in Rating**—A change or conversion from one rating to another. Example: Signalman third class to electronics technician third class.

- **Change in Status**—From Chief petty officer acting appointment to chief petty officer permanent appointment. Example: Chief yeoman, acting appointment (YNCA) to chief yeoman, permanent appointment (YNC).

service ratings or service ratings established, separate exams are administered for each SESR or service rating.

Schedule of Exams

Examination for advancement in rating are held in February and August. Change in rating exams are also authorized for these same examining periods. The days on which examinations normally are held are:

First Tuesday in August	E-8/E-9
First Thursday in August	E-6
Second Tuesday in August	E-5
Second Thursday in August	E-4
First Tuesday in February	E-7
First Thursday in February	E-6
Second Tuesday in February	E-5
Second Thursday in February	E-4

Any changes in this schedule will be announced if necessary in a BuPers Notice of the 1418 series which is issued before each examining period.

Only under special circumstances may changes in the above schedule be made. An operational commander, however, has the authority to delay up to 10 days the administration of Navy-wide exams for seagoing or aviation units under his operational control that are operating or based outside the continental U. S., provided that these units will not have had contact with personnel who have taken the examinations in the interim.

A convening authority may authorize a delay of up to four days

for units under his administrative cognizance provided that personnel of such units have had no means of communication with personnel who have taken the examination.

Commanding officers of ships at sea, proceeding independently, may hold examinations on any subsequent date during the voyage, again provided that members of the crew have had no means of communication with personnel who have taken the examinations.

In no case may the examinations be held before the scheduled dates unless specifically authorized by the Chief of Naval Personnel.

Check Your NavPers 624W

One of your most important responsibilities pertaining to advancement is to see that your NavPers 624W (*Report of Examination for Advancement or Change in Rating*) is correct and up to date.

This document is the worksheet that accompanies your examination booklet on which are transcribed the eligibility factors relating to your qualifications for advancement or change in rating. All entries made on your NavPers 624W are taken from your service record. (This is the reason why you should make it a point to assure that your service record is kept up to date.)

Inaccurate or incomplete information on your NavPers 624W could possibly prevent you—though fully

qualified—from being advanced in rating.

You will be given the opportunity to review your NavPers 624W when you take your examination. *You should be sure to take the time to check it thoroughly to see that you have been given proper credit for time in service and pay grade and received the proper number of points for awards.*

If you believe that any entry is in error, you should circle that entry with a pencil and make arrangements with the Examining Board to have it corrected. Immediately after the exam you personally should check with the personnel office to see that your NavPers 624W is corrected before it is returned to the examining center.

The importance of submitting a correct NavPers 624W cannot be stressed enough. As said earlier, an incorrect or incomplete form could prevent you from being advanced. Check your NavPers 624W thoroughly and then check it again.

In reviewing your NavPers 624W, here's a check list of what to look for:

- The name of your command and its proper mailing address should appear on the top left corner of the form.

- The examination serial number is the same as that which appears on the envelope containing your examination booklet.

- Your name (last name and initials) should be the same as it appears in your service record.

- Make sure that your service number is correct.

- Check your present rating abbreviation and also make sure the abbreviation of the rating for which you are being examined is correct.

- See that your Enlisted Performance Evaluation Mark is properly entered. This mark should be carried to two decimals (Example: 42.50).

- Check your credit of total active service.

- Check your credit for length of service in pay grade.

- Check your multiple for creditable awards.

- Check the entry for performance test.

Period of 'Performance Factor'

The following periods are established as the length of time over which enlisted performance in pay grade will be considered in develop-

ing the "performance factor." Any evaluations made before the specified length of time or in a lower pay grade will not be considered:

Examination Pay Grade	Period of time to be considered in Computing Per- formance Factor
E-3 to E-4	6 months
E-4 to E-5	12 months
E-5 to E-6	24 months
E-6 to E-7	36 months
E-7 to E-8	48 months
E-8 to E-9	24 months

Here is an example of how a performance factor is computed:

A candidate was advanced from SN to CT3 on 16 Nov 1959 and is eligible to participate in the August 1960 Navy-wide examinations for advancement to CT2. Evaluations were made under the enlisted performance evaluation system on 16 Nov 1959 and 16 May 1960. These evaluations were entered on page 9 of the enlisted service record from which the following evaluations were extracted:

	11-16-59	5-16-60
Professional Performance	3.0	3.2
Military Behavior	2.8	3.0
Leadership and Supervisory		
Ability	3.0	2.8
Military Appearance	3.0	2.8
Adaptability	3.2	3.4

Since the performance factor is based upon evaluations made during the period of minimum eligibility for advancement (one year in this case) immediately before the terminal eligibility date for the examining period involved (16 Nov 1960), the two semi-annual evaluations made in the year immediately before 16 Nov 1960 would normally be used. However, in this case the marks assigned on 16 Nov 1959 were based on service in pay grade E-3 and thus should not be considered. The evaluations made on 16 May 1960 are the only marks that should be used. They average out to 3.04.

Performance Factor Credit

The evaluation average is then converted to a Performance Factor credit in accordance with the Performance Factor Conversion Table found in Part IV of BuPers Inst. P1430.7D.

If you checked this table, you would find that the evaluation average of 3.04 taken from the example cited above would have a performance factor credit of 21.20. This is the mark that would be entered on the NavPers 624W in the multiple computation section.

The highest performance factor



STUDYING IS the sure way to prepare for the next promotion examination.

you can possibly obtain is 50.00 which is equivalent to an evaluation average of 4.0. (How do you rate?)

You must be certain that the performance factor entered on your NavPers 624W is correct because changes will not be permitted after the examination results are published.

Total Active Service

Check your NavPers 624W to insure that you have been credited with the proper amount of total active service. Credit for total active service is computed in accordance with the procedures outlined in Part II of BuPers Inst. P1430.7D. This entry on your NavPers 624W is

made in years and months and the actual credit you receive toward your multiple for total service should be carried to two decimal points. For example, if you are taking the August 1960 exams and you will have completed eight years' and three months' (08-03) total active service on the terminal eligibility date (16 Nov 1960), your numerical credit for multiple purposes will be 08:25.

The maximum credit for total active service is 20.00.

Service in Pay Grade

Credit for service in pay grade should also be computed in years and months and carried to two decimal points. (Continued on page 34.)

SCHOOLS are sometimes necessary before you advance to your next rating.



PATHS OF ADVANCEMENT

GENERAL APPRENTICESHIP



Navy Blue Stripes on White or White Stripes on Navy Blue



Red Stripes on White or Navy Blue



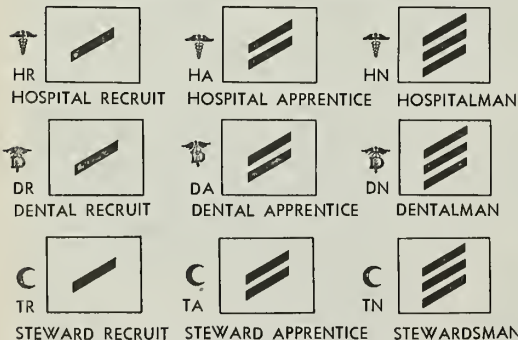
Light Blue Stripes on White or Navy Blue



Green Stripes on White or Navy Blue



Navy Blue Stripes on White or White Stripes on Navy Blue



PETTY OFFICERS



GROUP I DECK



GROUP II ORDNANCE



GROUP III ELECTRONICS



GROUP IV PRECISION EQUIPMENT



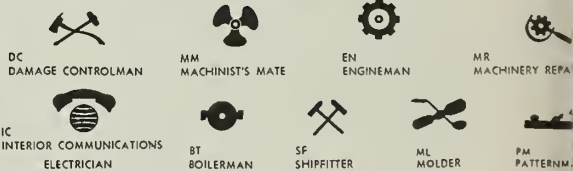
GROUP V ADMINISTRATIVE AND CLERICAL



GROUP VI MISCELLANEOUS



GROUP VII ENGINEERING AND HULL



GROUP VIII CONSTRUCTION



GROUP IX AVIATION



GROUP X MEDICAL



GROUP XI DENTAL



GROUP XII STEWARDS



HM and DT personnel who desire to be considered for advancement in their respective programs may apply in the area in which they are currently qualified. They should, however, realize that they must have had at least one year of practical experience within that technical field. HM personnel are encouraged to participate in the Dental Corps programs. See BuPers Inst. 1120.18F.

†SECNAV Approved. A forthcoming announcement will announce the requirements for the program.

FOR ENLISTED PERSONNEL

LIMITED DUTY OFFICER PROGRAM

E-9	ENS	LTJG	LT	LCDR	CDR
	O-1	O-2	O-3	O-4	O-5

- SM SIGNALMAN
- NW NUCLEAR WEAPONS MAN
- DK DISBURSING CLERK
- COMMUNICATIONS TECHNICIAN
- EM ELECTRICIAN'S MATE
- BR BOILERMAKER
- CM CONSTRUCTION MECHANIC
- AQ AVIATION FIRE CONTROL TECHNICIAN
- AE AVIATION ELECTRICIAN'S MATE
- PT PHOTOGRAPHIC INTELLIGENCE MAN

in the LDO
themselves
ill compete
ght years of
AM and DT
ical Service

g BuPers Notice will
new/revised ratings.

LDO

The Limited Duty Officer Program is the Navy's principal enlisted-to-officer program. To be eligible for LDO you must: (1) Be a U.S. citizen; (2) a POI or above, a warrant officer or a temporary commissioned officer; (3) have served in pay grade E-6 for one year; (4) be on active duty in the Regular Navy; (5) have completed eight years of service; (6) have not reached your 34th birthday—for present or former temporary officers the age limit is 37; (7) be a high school graduate or possess the service equivalent; (8) meet the prescribed physical requirements; and (9) have a clear record for the past two years. For complete details, see BuPers Inst. 1120.18F.

LDO CATEGORY	OFFICER DESIGNATOR	ELIGIBLE ENLISTED RATINGS
DECK (600)	BM QM	
OPERATIONS (601)	RD SO RM SM	
ORDNANCE, SURFACE (610)	GM NW	
ORDNANCE, CONTROL (611)	FT GS	
ORDNANCE, UNDERWATER (612)	TM MN	
ADMINISTRATION (620)	YN PN MA JO DM LI PC	
BANDMASTER (626)	MU	
ENGINEERING (630)	MM BT MR EN IM BR OM	
HULL (635)	DC ML PM SF	
ELECTRICIAN (637)	EM IC	
ELECTRONICS (640)	ET	
CRYPTOLOGY (646)	CT	
AVIATION OPERATIONS (660)	AB AC PR PT	
PHOTOGRAPHY (663)	PH	
AEROLOGY (665)	AG	
AVIATION ORDNANCE (670)	AO AQ	
AVIATION ELECTRONICS (680)	AT AE TD	
AVIATION MAINTENANCE (685)	AD AM	
SUPPLY (370)	DK SK AK CS SH SD	
CIVIL ENGINEER (570)	CM EO UT CE EA BU SW	



COMMISSIONED OFFICER PROGRAMS AVAILABLE TO ENLISTED MEN

In addition to the normal path of advancement, the following programs leading to a commission are available to qualified enlisted personnel:

USNA

Unmolested mole enlisted personnel of the Regular Navy and Naval Reserve who are high school graduates between the ages 17 and 22 and meet all other requirements may attend the U.S. Naval Academy. For complete details see BuPers Notice 1531 and the current issue of the pamphlet entitled "Regulations Governing the Admission of Candidates Into the U.S. Naval Academy as Midshipmen."

NROTC

Unmolested mole personnel who are high school graduates between the ages 17 and 21 may apply for the Naval Reserve Officer Training Corps. See BuPers Inst. 1111.4C.

NESEP

Enlisted men and women who are high school graduates, not more than 25 years of age, have a combined GCT-ARI score of 118 and are on active duty in the Regular Navy in pay grade E-2 or above, may qualify for four years of college under one of the Navy's two Enlisted Scientific Education Programs. There are no moral restrictions for this program. See BuPers Inst. 1510.69D.

OCS

Active duty enlisted men and women holding a baccalaureate degree or higher with a minimum of 120 semester hours may apply for officer candidate training of Newport, R.I. There are no moral restrictions. The age and physical requirements vary. See BuPers Inst. 1120.29.

INTEGRATION

Men and Women applicants must be between the ages 19 and 25, have 30 semester hours of college or be a high school graduate and have a GCT or ARI score of 60 or above. Warrant officers must have two years in grade while enlisted personnel must have at least three years of continuous active duty in the Regular Navy. See BuPers Inst. 1120.18F.

NAVCAD

Unmolested mole enlisted personnel between the ages 18 and 25 who have successfully completed 60 semester hours or have 30 semester hours and a combined GCT-ARI score of 120 and MECH of 58. (GED test will be accepted in lieu of 30 semester hours.) See BuPers Inst. 1120.208 for complete details.

AOC

Pilot training— Mole personnel between the ages 19 and 26 who possess a college degree and are qualified in all other respects may become a Navy pilot through the Aviation Officer Candidate Program. There are no moral restrictions. See BuPers Inst. 1120.29A.

In addition, there is also an AOC (1355) program which leads to a commission in Aviation (other than pilots) for qualified personnel who are between the age of 19 and 27 and possess a baccalaureate degree. See BuPers Inst. 1120.29A.

Study Courses and Material on Military Requirements

Here is the latest list of training courses and other publications used to prepare the examination questions on the military requirements for all pay grades.

You must complete the courses marked with an asterisk (*) and have them recorded in your service record before you can be recommended for advancement.

The two mandatory courses for E-8 and E-9 are waived for the August 1960 exams. However, material from these publications will be used in the August 1960 exams and the courses will be required thereafter.

It will be to your advantage if

you also study all of the publications indicated for the pay grade in which you are to be examined, as well as those for all lower rates. The bibliography of required training courses and study guides for the professional portions of all advancement in rating examinations can be found in the current issue of the "BuPers Manual of Training Publications for Advancement in Rating" (NavPers 10052-H). If Enlisted Correspondence Courses (ECC) are available, their NavPers numbers are listed. As new courses become available they are listed in ALL HANDS Magazine.

Applicable Rates	Publication Titles and NavPers Number	NovPers No. of ECC and OCC
3,2	*Military Requirements for Petty Officers 3 and 2 (NavPers 10056)	91206
1, C	*Military Requirements for Petty Officers 1 and C (NavPers 10057)	91207
3	Basic Military Requirements (NavPers 10054)	91202
3	Standard First Aid Training Course (Chapters 1-4, 6-8, 11, Appendix 10) (NavPers 10081)	91217
3, 2, 1, C, E-8 & E-9	ABC Warfare Defense (Chapters 1-7) (Chapter 8) (NavPers 10099)	
3	Uniform Code of Military Justice Art. 7 through 16, 31 & 55	
2	Art. 25, 27, 37, 107, 116 & 117	
1	Art. 38, 77, 78, 109 & 139	
E-8	Art. 3, 32, 43	
E-9	Art. 64 through 67	
1	Manual for Navy Instructors (NavPers 16103-B)	
C	Navy Regulations Art. 1811, 1813, 1814 & 1817	
E-8 (all ratings)	Administration of CPO Messes Ashore (NavPers 15800)	
E-8 & E-9	Division Officers Guide U. S. Naval Institute	
E-8 & E-9	Status of Forces Agreements (NavPers 10008)	
E-8	*Navy Regulations	10740-A1
E-9	*Military Justice in the Navy	10993-2

mal points. You receive double credit for service in pay grade and are allowed a maximum of 20 points.

As an example of credit for service in pay grade, take the case of the CT3 cited above. He was advanced to CT3 on 16 Nov 1959. On the terminal eligibility date for the August 1960 exams (16 Nov 1960) he will have served exactly one year in pay grade E-4 (01-00). Therefore, he will be credited with the numerical factor of 02.00 for time served in pay grade.

Credits for total naval service and for time in pay grade are computed in the same manner as for eligibility for advancement, as described on page 28 and in Part II of BuPers Inst. P1430.7D with the following exceptions:

Continuous service is not required; therefore, time served before broken service is counted in all computations for advancement multiple.

Service before reduction in rating for any reason may be counted in all computations for advancement multiple.

If information necessary for computing multiple is not contained in your current service record, your personnel officer may obtain it from the Chief of Naval Personnel using form NavPers 589 (Request for Service Record Data for Advancement in Rating).

All awards you have received that are creditable in figuring your final multiple must be listed and credits specified. Multiple credit for awards, with a maximum of 10:00 allowed, is scored as follows:

Award	Multiple Credit
Medal of Honor	6.00
Navy Cross	5.00
Silver Star Medal	4.00
Distinguished Service Cross (Army)	4.00
Distinguished Flying Cross	4.00
Navy and Marine Corps Medal	3.00
Soldier's Medal (Army)	3.00
Bronze Star Medal	3.00
Air Medal	3.00
Gold Life Saving Medal	3.00
Silver Life Saving Medal	3.00
Commendation Ribbon	3.00
Letter of Commendation	2.00
(Without authority to wear ribbon, if addressed personally to the individual from the President, Secretary of Defense, Secretary of the Navy, or Chief of Naval Operations.)	
Purple Heart	2.00
Good Conduct Medal or Clasp	2.00
Presidential Unit Citation (only if entitled to wear with star)	1.00
Navy Unit Commendation	1.00
Distinguished Unit Badge (Army)	1.00

In the case of Good Conduct Medals, an award may also be listed if it is anticipated that it will be earned by the terminal eligibility date.

Performance Test

If a performance test is required for your rating and you have successfully completed it, a "passed" entry should be recorded in the performance test block of your NavPers 624W. If you failed the required performance test or did not complete it, you will not be eligible to compete in the advancement in rating examination.

Dates of the expiration of your current obligated active service and when you were advanced to your present rate should be indicated as well as a record of completion of required military and professional practical factors, training courses and service schools attended.

After reviewing your NavPers 624W, you are then put to the big test. The Examining Board will provide you with detailed instructions pertaining to the examination and how to use the new punched card answer sheets.

Examination Score

Your examination score is determined by the Naval Examining Center on a 0-80 basis. This score is then added to your final multiple.

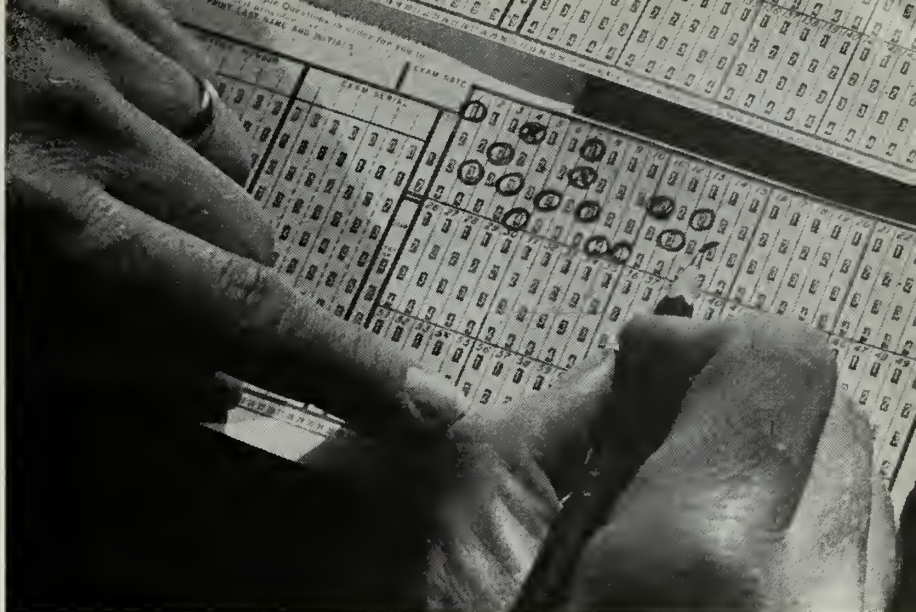
It should be noted that one of the most important factors for eligibility for advancement is passing the examination. If you fail the exam, you cannot be advanced, regardless of what score you receive on your final multiple.

Your examination score is combined with the weighted credits for total service, for time in present pay grade, for performance and awards to form the final multiple. Each of these factors was described in detail earlier in this story. Final multiples are determined by the sum of the following factors:

Factor	Maximum Credit
Examination Score	80.00
Performance Factor	50.00
Total Active Service	20.00
Service in Pay Grade	20.00
Awards	10.00
Total	180.00

Advancement Quotas

Advancement to pay grades E-4 through E-9 are subject to quota control in all ratings and pay grades. Quotas are administered on a Navy-wide basis. They are determined by the Chief of Naval Personnel based



THIS IS IT—Know your Navy job and responsibilities when you take the test.

on the vacancies in each rating and on maximum number of additional petty officers that can be supported within the authorized enlisted strength of the Navy.

Quotas are administered through the Commanding Officer, Naval Examining Center for pay grades E-4, E-5 and E-6; and by the Chief of Naval Personnel for pay grades E-7, E-8 and E-9.

The determination of which eligible personnel may be advanced within quota limitations will be

made on the basis of final multiple standings, except for pay grades E-8 and E-9 which are determined by a selection board. In determining advancements, only candidates who participated in and passed the most recent Navy-wide examination for that rate will be considered.

From time to time, quotas are divided into 'increments'—groups with different advancement dates—in order to advance the maximum number of candidates. Personnel are included in increments according to

NO GIFT—The Navy affords you the opportunity for advancement but it does not simply hand out crow's and stripes. Qualify and earn your promotion.





WELL WHAT DO YOU KNOW? Navymen get ready to test their knowledge as they fill out forms prior to taking examination for third class petty officer.

final multiple standings.

Quotas for administrative advancements of temporary officers to pay grade E-7 in their enlisted status are unlimited. Administrative advancements made under this provision are not authorized to pay grades E-8 and E-9.

Results of Examinations

Individual commands will be notified of the results of examinations for advancement (or simultaneous change in rating and advancement) by letter from the Commanding Officer, U. S. Naval Examining Center. Except for pay grade E-7, these notifications will also designate personnel whose final multiple scores were high enough to place them within the quota for advancement in accordance with the quota control system.

Notifications from the Naval Examining Center will also contain authority for change in rating in equal pay grade of personnel who participated for that purpose and who passed the examination.

For advancement to chief petty officer, a BuPers Notice in the 1430 series will be issued listing those candidates for pay grade E-7 who passed the examination and had a final multiple score high enough to

place them within the quota for advancement. The results of the exams for pay grade E-7 distributed by the Naval Examining Center indicate only whether the candidates passed or failed the examination and are for information only.

A BuPers Notice in the 1430 series will be distributed listing candidates who have been selected for advancement to pay grades E-8 and E-9.

The examination results of Naval Air Reserve Training (TAR) personnel in pay grades E-4 through E-7 will be furnished to the Chief of Naval Air Reserve Training, who in turn will distribute the examination results to personnel concerned.

Convening authorities will be furnished a service-wide statistical summary of the results.

Authority to Advance

Upon receipt of authorization from the Naval Examining Center, individual commanding officers may advance eligible personnel within the proper paths of advancement as follows:

- *Regular Navy and Naval Reserve on active duty (other than TARs serving under the Chief of Naval Air Reserve Training)*—

To pay grades E-4, E-5 and E-6 after being notified by the CO.,

Naval Examining Center, that the personnel concerned may be advanced within quota limitations. This notification will be in the form of a letter to each command.

To pay grades E-7, E-8 and E-9 when notified by the Chief of Naval Personnel that advancement is authorized. This notification will be in the form of a letter from the Chief of Naval Personnel, and a BuPers Notice in the 1430 series.

- *TAR personnel on active duty in the Chief of Naval Air Reserve Training Program*—

To pay grades E-4, E-5 and E-6 after being notified that personnel concerned successfully passed the Navy-wide examination and provided that an actual vacancy exists. This notification will be made by the Chief of Naval Air Reserve Training.

From pay grade E-6 to E-7 to fill actual vacancy, subject to such quota control as may be exercised by the Chief of Naval Air Reserve Training. Candidates must successfully pass the Navy-wide examination and must be recommended by the Chief of Naval Air Reserve Training to fill an actual vacancy. Personnel in the TAR Program selected for advancement to E-8 and E-9 will be notified via their CO, by a letter from the Chief of Naval Personnel and a BuPers notice in the 1430 series.

Effecting Advancements

BuPers Instruction 1080.45 (Subj: Utilization of the Navy Enlisted Personnel Diary in lieu of Certain Military Pay Record Vouchers) specifies the service record and personnel diary entries necessary to report advancements and changes in rate and rating.

Petty Officer Appointment Forms

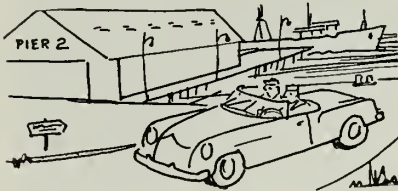
Commanding officers will present Petty Officer Appointment Forms to enlisted personnel of the Regular Navy and Naval Reserve upon advancement to pay grades E-4, E-5, E-6, and E-7 acting appointment. The "date of rank" will be the effective date of advancement as indicated in the advancement notification.

In the case of personnel advanced to E-7, it will be specified in the form that the advancement is an acting appointment. The Chief of Naval Personnel will issue certificates for changes in status to chief petty officer, permanent appointment, in accordance with the provisions of Article C-7209, BuPers Manual.

Here's How to Stay on the Right Road to Advancement

Last year, 37,600 people were killed in automobile accidents and 2,870,000 were injured, an increase of 50,000 casualties over 1958. That's a lot of people.

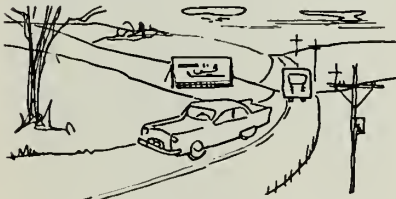
Let's see what the figures mean. More men, women and children



... allow enough time to cover mileage

were injured in the United States in traffic accidents in 1959 than can be found in the combined populations of Cincinnati, Boston, New Orleans and San Francisco. Try to imagine those four cities completely populated by accident victims, many of them permanently maimed or crippled. And, automobile accidents in 1959 caused enough deaths to wipe out the equivalent of the population of New London, Conn., or Beverly Hills, Calif.

Since the invention of the horseless carriage some 50 years ago, 62 million Americans have been killed,



... don't pass on curves or hills

crippled and maimed in automobile accidents. More people have died on the highways than on our nation's battlefields, and more have been injured than in all the world's wars combined.

What causes these accidents? It's not the automobiles alone that are dangerous, although cars that ran away—with no driver behind the wheel—did kill 30 people last year. The fault does not lie with the mechanical condition of the car. In 95 per cent of the accidents in which people were killed in 1959, the automobiles were in apparently good condition. *It's not the car's fault.*

We could try to blame the accidents on weather conditions, but the

statistics are against that. Oddly enough, snow, rain and fog are not prime causes of road mishaps.

Less than two per cent of the accidents in which people were killed occurred in foggy weather; only nine per cent in rainy weather; and only two and one half per cent in snowy weather. The weather was clear in 86 per cent of the death-dealing tragedies.

No, it isn't bad weather that causes the high number of accidents. The accident rate actually goes down when the weather turns unfriendly. Perhaps more people stay home. But then possibly it's because the drivers who do venture out are aware of the danger and drive carefully and cautiously.

We might, in a defensive maneu-



... slow down for children

ver, try to put the blame for the nation's high accident rate on buses, taxis and trucks. But again the facts will not bear us out. For although the commercial vehicles in this country account for half the total mileage rolled up in a year, four out of every five vehicles involved in personal injury accidents were passenger cars.

So, no matter how you cut it, it seems that *it's just the ordinary person in an ordinary automobile, on a clear day, who is causing all*



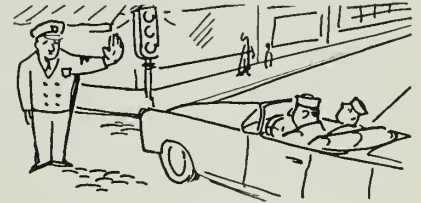
... don't drive when feeling snoozy

the havoc.

What does this joker look like on his way to an accident? Probably he's in a little too much of a hurry. Most likely he isn't paying too much attention to caution signs, isn't stopping fully for stop signs, and quite

possibly he has let his mind wander off his driving. Does he sound familiar?

Over a long holiday weekend, radio announcers predict the number of Americans who will be killed in automobile accidents that weekend.



... obey all traffic signs

And as the hours pass, the death toll mounts and everyone wonders whether people will drive safely enough to fool the experts and come under the predictions, or if there are so many incautious drivers that the total will exceed the predictions.

However, while the experts can tell us how many will die, they can't tell us who will die. We can be told, for example, that approximately 400 persons will die between Friday night and Monday night on a typical three-day Fourth of July weekend. But no one knows yet which 400.



... drive safely, arrive safely

Nevertheless, the experts can tell us which highway travelers stand the best chances of coming out alive.

The driver who stays alert, who obeys traffic signs and signals, who makes sure he's had enough rest before driving, and who leaves his drinking for another time stands the best chance of getting home free.

With the accident statistics skyrocketing into the millions each year, safe driving becomes not only a duty but a matter of self-preservation.

One further point—although they include less than 14 per cent of the population, drivers under the age of 25 were involved in nearly 29 per cent of all fatal accidents in the U. S. during 1959.

Incidentally how old are you?

THE BULLETIN BOARD

Roundup on Retirement for Officers and Enlisted Personnel

OFFICER OR ENLISTED, most Navy careermen contemplate retirement some time, and have questions concerning it. For enlisted men, retirement comes only after 30 or more years' active service, but officers may be affected by any of a myriad of retirement laws. Here is a roundup of the latest information on the subject.

The Chief of Naval Personnel issues orders to officers for release from active duty incident to retirement. Voluntary retirement orders will be issued only after approval of retirement by the Secretary of the Navy. Your orders will contain the effective date of retirement, the detachment date, the law or laws under which you will retire, and grade in which such retirement is to be effected.

In the case of enlisted Navymen, the Chief of Naval Personnel issues an authorization to your commanding officer to effect your retirement. You are usually detached as of the last day of the month, since retirements become effective and retired pay commences on the following first day of the month.

Accrued leave, creditable at the date of retirement, is payable in a lump-sum amount not to exceed 60 days' basic pay and allowances in effect on the day prior to date of retirement. You cannot use this accrued leave for "terminal" leave subsequent to detachment from your last permanent duty station or from a separation activity. If you are continued on active duty from the date of retirement, the lump-sum payment will be made whenever you are finally released from active duty.

If you are on sea duty or outside the continental limits of the United States, you will be ordered to the nearest continental port of debarkation for separation unless you have specifically requested to be separated outside continental U. S. You may be separated at your overseas duty station if you so desire.

If you are an officer or warrant officer, you should submit your re-

All-Navy Cartoon Contest
C. Wise, HM1, USN



"Is this constructive criticism or a chewing out?"

quest for separation to the Chief of Naval Personnel. Those Navymen on duty within the continental U. S. will normally be separated by the activity to which attached, or the nearest activity capable of effecting separations; an officer may be separated elsewhere only if he has declared this area to be his final home of selection for retirement by means of a formal written statement to the Chief of Naval Personnel. In no case is a separation authorized at any activity which would result in additional cost to the government.

When you retire your pay accounts are closed out and forwarded to the Navy Finance Center, Cleveland, Ohio, where retired pay accounts are carried. You should address all requests, inquiries and statements relating to your retired pay directly to that office. Unless you request otherwise, all allotments for insurance will be automatically continued when you retire. All other allotments are stopped. Nondisability retired pay is subject to income tax and this tax is withheld by the Finance Center when applicable.

When you request voluntary retirement, or are faced with involuntary retirement for statutory reasons, it is important that you obtain a

complete retirement physical examination. This examination should be obtained sufficiently far in advance of the prospective date of retirement to permit correction of minor physical defects, or, if major defects are found, to make possible completion of physical retirement proceedings before the date otherwise scheduled for retirement.

Since most statutory retirements are mandatory by law and cannot be canceled or delayed, it is quite conceivable that, even though you were otherwise eligible for disability retirement, you might be forced into a nondisability retirement while disability retirement proceedings were still in progress. Procedures have been set up to forestall the necessity of cancelling voluntary retirement, and to afford anyone being retired involuntarily the opportunity to obtain disability retirement, if qualified, before his statutory retirement date. They are:

- If requesting voluntary retirement you must submit to the Chief of Naval Personnel (Attn: Pers-B52) a substantiated notice of a successfully completed retirement physical examination before your request will be forwarded to SecNav for final action. This notice may be an endorsed copy of temporary additional duty orders, a certified copy of BuMed Standard Form 88, or a signed statement by the examining medical officer. This physical exam must be taken within three months of your retirement date.

- The same provisions apply to those being retired for failure of selection for continuation in the grades of captain or commander, statutory age or statutory service. If you are faced with such mandatory retirement, physical disability retirement proceedings require a minimum of one month from the conclusion of the physical evaluation board hearings to the final determination of fitness by SecNav. You should, therefore, take your pre-retirement physical at least three months before your scheduled retirement date.

- Involuntary retirement of a permanent warrant officer may, at the discretion of SecNav, be deferred for four months or less when proper evaluation of his physical condition and possible entitlement to disability retirement makes a period of hospitalization or medical observation necessary—a period which cannot be completed before the date retirement would otherwise be required.

- COs may reference BuPers Inst. 1811.1B as authority for ordering you to a medical activity to complete a retirement physical exam. Where travel is required, you should obtain TAD orders.

As a general rule you are retired in the grade or rate in which you are serving at the time of retirement. However, if you previously served in a higher officer grade than that held at the time of retirement, and SecNav determines that your service in such officer grade was satisfactory, you will, after retirement, be advanced on the Retired List to the higher grade.

A permanent warrant officer who desires retention on active duty beyond 30 years' active service must submit his request to SecNav via the chain of command, the chief of the cognizant bureau in the case of staff officers, and the Chief of Naval Personnel. This request must be submitted approximately four months in advance of the completion of 30 years' service. It should contain the number of months' extension desired, but not beyond age 62 for men and age 55 for women.

How to Compute Retired Pay

An officer or enlisted man who voluntarily retires under any law cited in BuPers Inst. 1811.1B which requires 30 or more years of active service for retirement is entitled to retired pay at the rate of 75 per cent of the basic pay to which he would be entitled if serving on active duty in the grade in which retired, or to which advanced on the Retired List.

An officer who is voluntarily retired under a law requiring more than 20 but less than 30 years of active service for retirement, or is involuntarily retired for age and/or statutory service, is entitled to retired pay at the rate of two-and-a-half per cent of the basic pay to which he would be entitled if serv-

ing on active duty in the grade in which retired, or to which advanced on the Retired List, multiplied by the sum of: his total years of service creditable for basic pay purposes as of 31 May 1958; his total years of active service, including active duty for training, performed after 31 May 1958; if not previously included, total years of constructive service credited for basic pay purposes by the Act of 30 Apr 1956, 37 USC 233(a)(7) (applicable only to officers of the medical and dental corps).

If in the Reserve he's entitled to one day's credit (with a max-

imum of 60 days' credit for any one year) for each retirement point earned as a member of a Reserve component after 31 May 1958, through authorized attendance at drills, periods of equivalent instruction or appropriate duty performed as authorized by the appropriate naval district commandant or the Chief of Naval Personnel, completion of correspondence courses, and 15 points per year gratuitous credit for Reserve membership.

A part of a year that is six months or more which may be obtained by adding the total service outlined above will be credited as a whole

WHAT'S IN A NAME

Vanguard I

The first Vanguard satellite was placed in orbit on 17 Mar 1958. When it completed its second year in orbit this spring, it had traveled 281,500,000 miles, and provided information which changed our theories about the structure of the earth, corrected our ideas about the density of the atmosphere at high altitudes (around 400 miles), and helped us to improve the accuracy of our maps.

Vanguard I still reports its position by radio. The continued broadcast is possible because it employs solar cells to provide power. Slowed only slightly by the near vacuum in which it travels, it will probably be in orbit more than 200 years—perhaps as long as 1,000.

The Vanguard program has also provided hardware for other missile efforts. Vanguard I demonstrated the usefulness of solar cells. The "Able" in the Thor-Able and Atlas-Able vehicles are the Vanguard second and third stages. The more efficient of the two third-stage rockets developed for Vanguard finds other wide applications in space exploration. The other two Vanguard satellites are still in orbit but are silent because their radios were battery-powered.

Of the seven Vanguard vehicles capable of putting satellites into orbit, three succeeded. All three are still in orbit. The last one, a full scale satellite, reported environmental conditions, studied the earth's magnetic field and examined solar X-rays. The second one examined meteorological data. Scientists are still studying the masses of data from these satellites to determine final conclusions. Both of these were battery-powered and are now silent.

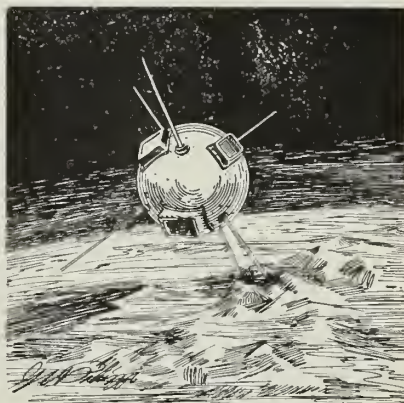
Vanguard I, the "baby moon", was placed in orbit with a perigee, or closest approach to the earth, of just over 400 miles—the highest of any earth satellite.

Vanguard's stable orbit makes possible the determination of the earth's irregularities and the far outer atmosphere characteristics. The oblateness (flattening of the poles) of the earth was found to be 1/298.3 instead of the older figure of 1/297. This is of importance in accurately mapping the earth and understanding its structure.

Refinement of the geodetic data from Vanguard I showed the earth was slightly pear-shaped—the stem at the North Pole. The deviations are about 500 feet in 4000 miles. Vanguard satellites showed the density of the atmosphere at 400 miles to be many times greater than had been supposed from earlier work.

Furthermore, these Vanguard measurements of outer atmosphere showed the density was variable and was connected with solar radiation.

It was originally thought that meteoritic dust might sand-blast and seriously damage satellites. The very fact of continuing radio transmission from Vanguard I indicates that normally this erosion is not serious.



year for multiplier purposes. An easy method of determining the multiplier for anyone who has been on active duty continuously since 1 Jun 1958 is to subtract the pay entry base date as shown in the current Navy Register (NavPers 15,018) from the last day of active duty. An example: A commander is to be retired on 1 Jul 1960. His pay entry base date is 12 Oct 1938.

Year	Month	Day	
60	6	30	(last day ACDU)
38	10	12	(pay entry base date)
—	—	—	
21	8	19	

As you can see, the commander's retired pay is computed at two-and-one-half per cent times monthly basic pay of a commander with over 20 but less than 22 years' service creditable for basic pay purposes, multiplied by 22.

Retired pay of a warrant officer who is retired under any law cited in BuPers Inst. 1811.1B will be based upon the applicable monthly basic pay of the grade in which retired, or to which advanced on the Retired List, but if the applicable basic pay of the grade to which advanced is less than that of any war-

rant grade satisfactorily held while on active duty, his retired pay will be based on the higher applicable basic pay.

Retired pay of any permanent Regular officer who served as a member of the military or naval forces before 12 Nov 1918, and who is retired under any law cited in BuPers Inst. 1811.1B, will be at the rate of 75 per cent of the basic pay to which entitled at the time of retirement.

In no case will retired pay exceed 75 per cent of the basic pay on which such pay is based.

Travel to Home You Select

You have one year from date of retirement, or one year from date of final detachment if continued on active duty after retirement, within which to select a home and complete your travel. Advance payment of mileage is not authorized. If you are going to live outside the U. S., you should submit an application for travel to the command which has authority to provide overseas transportation.

In order to receive transportation or reimbursement for transportation you must have your retirement orders endorsed showing the place selected as a home. You must actually perform travel to that place. Transportation for dependents and shipment of household effects to another place is not authorized.

However, shipment of household effects from the last and any previous duty station and/or place of storage to your home of selection is authorized. Household goods may be turned over to a supply officer or carrier for shipment up to one year after the date of your retirement.

Rights and Privileges

As a retired Navyman not on active duty you are entitled to wear the prescribed uniform of the grade held on the Retired List whenever wearing of the uniform is appropriate.

You are authorized to use your military title in connection with commercial enterprises.

You rate the privileges of commissary stores, small stores, officers clubs and armed service exchanges, subject to the limitation of available facilities.

Again subject to availability of facilities, you and your dependents may receive hospitalization, in-

WAY BACK WHEN

Smith to the Rescue

Any Navyman who's a veteran of war-time transport duty can still break out in a cold sweat when he recalls how super-crowded his ship became when four or five thousand battle-equipped troops were jammed aboard. Many submariners, too, retain harrowing memories of rescuing survivors of a torpedoed ship, then sharing already over-crowded quarters, sometimes for weeks, before reaching port.

When it comes to cramming, however, the destroyer USS *Smith*, a small four-stacker of the World War I era, went about as far as it was possible to go—and still stay afloat.

Smith was 293 feet long, and weighed but 700 tons. She had a complement of fewer than 100 (four officers, 84 enlisted), yet, for a few hours one July night in 1918, she bulged at the seams with more than 700 extra passengers.

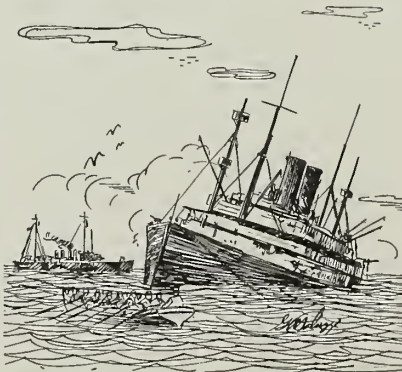
It came about like this. On 1 Jul 1918 *Smith* was escorting the transport Covington (ex-commercial liner *Cincinnati*) from Brest, when, shortly after 2100, Covington was struck by a torpedo.

Let *Smith's* log tell the next part of the story.

"8 p.m.—12 p.m., 1 July: At 9:00 changed course to 240 degrees true. At 9:07 saw heavy cloud of black smoke above Covington's smoke stacks. Changed course to right and heaved over towards Covington. Went to general quarters and went ahead to emergency full speed. DeKalb headed off about 30 degrees to the left, remainder of convoy about 30 degrees to the right. Proceeded to point 1000 yards on port quarter of Covington and laid a barrage of 22 depth charges, all charges functioning. Was followed by Porter and Little, who are believed to have also dropped depth charges. Proceeded to Covington. Covington fired several shots from port after gun. Circled her twice.

Stopped abreast and called boats in water alongside. By order of escort commander began picking up survivors in boats. Kept a crew in each boat so as, if necessary, to send them back to the ship, as CO of Covington had signaled that ship probably would not sink. Sent six boats to pick up men on rafts, and three boats to ship. At 10:50 cut loose all boats alongside and proceeded close to Covington with intention of going alongside, having misinterpreted a signal which was thought to convey the meaning that many men were still aboard. Hailed Covington—no answer. Three boats appeared under Covington's stern, who signaled no survivors left on ship. Picked up survivors still in boats."

Smith had done its rescue job so thoroughly that in the space of little more than three hours they hauled aboard a total of 743 men. Covington's CO and a working party remained aboard the crippled transport to assist tugs in taking her in tow. *Smith*, almost awash from the added weight, headed for Brest. Some 15 hours later she went alongside the troop carrier *D.H.B. 13*, and off-loaded the grateful passengers. Then *Smith*, her crew once more able to enjoy elbow room, went back to work.



patient and out-patient treatment at medical facilities (see Chapter 21 of the *Manual of the Medical Department*).

If surplus space is available, you and your dependents may take one round trip per year on an MSTs ship, subject to payment of applicable charges.

Responsibilities and Obligations

You are subject to the Regula-

tions of the Secretary of the Navy and to the *Uniform Code of Military Justice*.

You may be ordered to active duty in time of war or national emergency at the discretion of SecNav, but in time of peace only with your consent.

You are barred from wearing the uniform in connection with non-military, personal, or civilian enter-

prises, or activities of a business nature. In a foreign country you may wear the uniform only when attending, by formal invitation, ceremonies or social functions at which the wearing of a uniform is required, or by the regulations or customs of the country.

You must report your address annually on 1 January to the commandant of your naval district.

Laws and Regulations Pertaining to Retirement of Officers

Voluntary Retirement

In determining whether the active service requirement for voluntary retirement has been met, all active duty, including active duty for training, as a commissioned officer, warrant officer, enlisted man, or aviation cadet (appointed or enlisted) in the Navy, Marine Corps, Army, Air Force or Coast Guard, or in any of the Reserve components is creditable.

Years Active Service	Law	Applicable to
40 or more	10 USC 6321	Officers of the Regular Navy holding a permanent appointment in the grade of warrant officer, W-1, or above.
30 or more	10 USC 6322	Officers of the Regular Navy holding a permanent appointment in the grade of warrant officer, W-1, or above.
30 or more	10 USC 6326	Enlisted men, including members who hold a permanent enlisted grade and are serving under a temporary appointment in the grade of warrant officer, W-1, or above.
More than 20, at least 10 of which have been commissioned service (warrant officer, W-2, or above).	10 USC 6323	Officers serving in the grade of commissioned warrant officer, W-2, or above, including those who hold a permanent enlisted grade, and are serving under a temporary appointment as a commissioned WO, W-2, or above.
20 or more	10 USC 1293	Warrant officers, W-1, or above, including permanent warrant officers serving under a temporary appointment in the grade of ensign or above, and also including those who hold a permanent enlisted grade and are serving under a temporary appointment in a warrant, W-1, grade or above.

Note: A permanent warrant officer (W-1 or above), who retires while serving under a temporary appointment in the grade of ensign or above, will be retired in his permanent warrant grade and, after his retirement, will be advanced on the Retired List to the highest grade in which he served satisfactorily, as determined by SecNav. His retirement pay, however, will be computed on the basic pay of his warrant grade or on the basic pay of the grade to which advanced, whichever provides the higher retired pay.

Statutory Age and/or Service Retirement Male Officers (Other than Warrant Officers)

Law	Applicable to	Requirements
10 USC 6390	Permanent regular officers	Each officer below the grade of FADM will be retired on the first day of the month following the date on which he attains age 62. The President may defer the retirement of any such officer for as long as he considers advisable, subject to the following conditions: (a) the retirement of any such officer may not be deferred beyond the date he reaches age 64, and (b) not more than 10 officers whose retirement is so deferred may be on active duty at any one time.
10 USC 6371 (For RADM, unrestricted line);	Permanent regular officers	Each RADM of the unrestricted line, if not selected for continuation on the active list after 35 years' total commissioned service with five years in grade, will be retired on the first day of July immediately following the fiscal year in which he failed of selection for continuation.
10 USC 6372 (For RADM, restricted line and staff corps).	Permanent regular officers	Each RADM of the restricted line or of the staff corps, if not recommended for retention on the active list after 35 years' total commissioned service with seven years in grade, will be retired on the first day of July immediately following the fiscal year in which he failed of retention.
Act of 11 Aug 1959 (Public Law 86-1551) The "Hump" bill.	Permanent regular officers (except officers of the Medical Corps, Dental Corps, Medical	An officer who is considered by a continuation board convened under this act and who fails of continuation on the active list, shall, unless sooner selected for promotion, be retired on the first day of July immediately following the fiscal year in which the report of the board is approved, or on the first day of July following the fiscal year in which he completes 20 years' total commissioned service, whichever is later, and will thereafter be considered for all purposes as having been retired upon own application

(Continued on next page)

Law	Applicable to	Requirement
	Service Corps, or Nurse Corps, during the effective period of the Act of 27 Jun 1957, PL 85-62, and LDO officers).	under the provisions of 10 USC 6323. If the report of the board is approved less than six months before the end of the fiscal year, the retirement of the officer will be deferred until the first day of the seventh month following the month in which the report of the board is approved. Retired pay may not be less than 50 per cent of the basic pay upon which the computation of retired pay is based. An officer who has once been recommended for continuation will not thereafter be considered by a continuation board convened under this Act, but will be subject to applicable statutory retirement law as hereafter outlined.
10 USC 6376 (For CAPT, unrestricted line);	Permanent regular officers	Each captain of the unrestricted line will be retired on the first day of July immediately following the fiscal year in which he completes: (1) 30 years' total commissioned service, if not on a promotion list and if considered as having twice failed of selection to flag grade; or (2) 31 years' total commissioned service, if not on a promotion list.
10 USC 6377 (For CAPT, restricted line and staff corps).	Permanent regular officers	Each captain of the restricted line, if not on a promotion list and if not selected for continuation on the active list, will be retired on the first day of July immediately following the fiscal year in which the officer completes 31 years' total commissioned service. Each captain of the staff corps, if not on a promotion list and if not selected for continuation on the active list, will be retired on the first day of July immediately following the fiscal year in which he completes: (1) 30 years' total commissioned service and if considered as having twice failed of selection for promotion to flag rank; or (2) 31 years' total commissioned service.
10 USC 6379	Permanent regular officers (except LDO officers).	Each CDR, if not on a promotion list and if considered as having twice failed of selection for promotion to the grade of captain, will be retired on the first day of July immediately following the fiscal year in which he completes 26 years' total commissioned service.
10 USC 6380	Permanent regular officers (except LDO officers).	Each LCDR, if not on a promotion list and if considered as having twice failed of selection for promotion to the grade of commander, will be retired on the first day of July following the fiscal year in which he completes 20 years' total commissioned service.
10 USC 6383	LDO officers.	Each officer will be retired on the first day of the second month following the month in which he completes 30 years' active naval service, exclusive of active duty for training. Each LCDR will be retired on the first day of July immediately following the fiscal year in which the officer is considered as having failed of selection for promotion to commander for the second time. If any such officer had the permanent status of a warrant officer when first appointed LDO, he has the option, instead of being retired, of reverting to the grade and status he would hold if he had not been so appointed. If any such officer had a permanent grade below the grade of warrant officer, W-1, when first so appointed, he has the option, instead of being retired, of reverting to the grade and status he would hold if he had not been so appointed but had instead been appointed a warrant officer, W-1.

Nurse Corps Officers

10 USC 6377	Permanent regular officers	Each CAPT, if not selected for continuation on the active list, will be retired on the first day of July immediately following the fiscal year in which the officer attains age 55 or completes 30 years' active commissioned service as computed under 10 USC 6388, whichever is earlier. Each CDR, if not on a promotion list and if not selected for continuation on the active list, will be retired on the first day of July immediately following the fiscal year in which she attains age 55 or completes 30 years' active service as computed under 10 USC 6388, whichever is earlier.
10 USC 6396	Permanent regular officers	Each LCDR will be retired on the first day of July immediately following the fiscal year in which she attains age 55 or completes 30 years' service computed under 10 USC 6388, whichever is earlier. Each officer serving in a grade below LCDR will be retired on the first day of July immediately following the fiscal year in which she attains age 50 or completes 20 years' service computed under 10 USC 6388, whichever is later.

Women Officers (other than Nurse Corps and Women Warrant Officers)

Note: Women officers of the Medical, Dental or Medical Service Corps appointed under laws other than the Act of 12 Jun 1948, or under 10 USC 5590, are governed by the same retirement laws as are male commissioned officers of the Medical, Dental, and Medical Service Corps of the Regular Navy.

10 USC 6398	Permanent regular officers	Each officer who holds a permanent appointment in the grade of commander will be retired on the first day of the month following the date on which she attains age 55
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Law	Applicable to	Requirement
		or completes 30 years' active commissioned service in the Navy or Marine Corps, including Reserve components thereof, whichever is earlier.
10 USC 6399	Permanent regular officers	Each officer who holds a permanent appointment in a grade below commander will be retired on the first day of the month following the date on which she attains age 50. This section does not apply to any officer in the grade of LCDR who is on a promotion list for promotion to the grade of commander, or to any officer while serving as Assistant to the Chief of Naval Personnel with the rank of captain.
10 USC 6400	Permanent regular officers	Each officer who holds a permanent appointment in the grade of LCDR will be retired on the first day of July immediately following the fiscal year in which the officer is not on a promotion list and has completed 20 years' active commissioned service in the Navy or Marine Corps, including the Reserve components thereof.
Warrant Officers		
10 USC 1263, and section 46(a) of the Act of 10 Aug 1956 (70A Stat. 6381.	Permanent warrant officers (male).	Each warrant officer who, having completed not less than 20 years' active service, has attained age 62, will be retired on the first day of the month following the date that is 60 days after the date on which he attains that age. The separation of any warrant officer who, on 1 Nov 1954, was a permanent warrant officer, and who upon attaining age 62 has completed less than 20 years' active service, may be deferred by SecNav until he completes 20 years' active service, but not later than the date which is 60 days after the date on which he reaches age 64.
10 USC 1255, and section 46(b) of the Act of 10 Aug 1956 (70A Stat. 6381.	Permanent warrant officers (female).	Each warrant officer who, having completed not less than 20 years of active service, has attained age 55, will be retired on the first day of the month following the date that is 60 days after the date on which she reaches that age. The separation of any warrant officer, on 1 Nov 1954 who, was a permanent warrant officer, and who upon reaching age 55 has completed less than 20 years' active service, may be deferred by SecNav until she completes 20 years' active service, but not later than the date which is 60 days after the date on which she reaches age 60.
10 USC 564;1305	Permanent warrant officers.	<p>(a) 30 years' service. Each warrant officer who has not been selected for continuation will be retired on the first day of the month following the 60th day from the date of completion of 30 years' active service. Any WO recommended by a board of officers, and at the discretion of SecNav may, upon completion of 30 years' active service, be continued on active duty with his own consent, but not beyond the date which is 60 days after the date he attains age 62.</p> <p>(b) More than 18, but less than 20 years' service. Each warrant officer who has twice failed of selection for promotion to the next higher permanent warrant officer grade will be retained on active duty and be retired on the first day of the month following the 60th day from the date of completion of 20 years' active service, if he has not by that time been selected for promotion to the next higher grade.</p> <p>(c) More than 20 years' service. Each WO who has completed 20 years' active service on the date he has twice failed of selection will be retired on the first day of the month following the 60th day from the date of his second failure of selection.</p> <p>(d) Retirement under (b) or (c) above may, at the discretion of SecNav, be deferred in the case of a WO serving on active duty as a commissioned officer who elects to continue to so serve, until such date as SecNav may prescribe.</p>

Successful Candidates Start NROTC Training

In September this year 1388 potential naval officers will begin college training at 52 leading colleges and universities throughout the United States. These are the successful candidates who competed last December for appointment.

This group was selected from some 20,000 high school seniors and graduates who applied for the NROTC program last fall. Also selected were 904 alternates. Candidates who enter the program at the start of the academic year this fall will be appointed Midshipmen, in the U.S. Naval Reserve.

Selection committees in each state, were composed of one educator, one prominent civilian and one senior naval officer.

All-Navy Cartoon Contest
D. F. Joachim, JO3, USN



"Darn combination lock!"

Three Correspondence Courses Ready for Regulars, Reserves

Two new officer correspondence courses and one enlisted correspondence course are now available from the Naval Correspondence Course Center, Scotia, N. Y. One course has been discontinued.

The new courses are:

- OCC Leadership (NavPers 10903-A)
- OCC Meteorology (NavPers 10954-B)
- ECC Gunner's Mate 3 (NavPers 91354)

The OCC General Aerology (NavPers 10954-A3) has been discontinued. (See also page 44.)

Latest List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg., 311, Naval Base, Brooklyn, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by

(C) and those in wide-screen processes by (WS). Distribution began in May.

Sink the Bismarck (1507) (WS): Drama; Kenneth More, Dana Wynter.

Sign of the Gladiator (1508) (C) (WS): Drama; Anita Ekberg, Lorella DeLuca.

The Story of Louis Pasteur (1509): Drama; Paul Muni, Josephine Hutchinson.

Elephant Gun (1510) (C): Melo-

drama; Belinda Lee, Michael Craig. *Suddenly, Last Summer* (1511): Drama; Elizabeth Taylor, Montgomery Clift.

The Atomic Submarine (1512): Melodrama; Arthur Franz, Dick Foran.

A-Dispatch from Reuters: Drama; Edward G. Robinson.

Who Was That Lady (1514): Comedy; Tony Curtis, Dean Martin.

Seven Thieves (1515) (WS): Drama; Edward G. Robinson, Rod Steiger.

The Hypnotic Eye (1516): Melodrama; Jacques Bergerac, Merry Anders.

Humoresque (1517): Drama; Joan Crawford, John Garfield.

Rise and Fall of Legs Diamond (1518): Melodrama; Ray Danton, Karen Steele.

Our Man in Havana (1519) (WS): Comedy-Drama; Alec Guinness, Burl Ives.

The Music Box Kid (1520): Melodrama; Ronald Foster, Luana Patten.

Northern Pursuit (1521): Drama; Errol Flynn, Carol Baker.

The Last Voyage (1522) (C): Drama; Robert Stack, Dorothy Malone.

Hell Bent for Leather (1523) (C) (WS): Western; Audie Murphy, Felicia Farr.

Inside the Mafia (1524): Melodrama; Cameron Mitchell.

New and Discontinued Correspondence Courses

Four new enlisted correspondence courses have been issued by the Chief of Naval Personnel.

Here's a list of the new courses and discontinued courses.

Title	No. of Assignments	Navpers No.
*Personnel Man 3 & 2	6	91420-1
*Aviation Boatswain's Mate 3 & 2, Vol. II	5	91637-1
*Dental Technician Repair	6	91689-1
Quartermaster 1 & C	7	91253
*May be taken for repeat credit.		
Discontinued Courses		
Personnel Man 3		NP 91419-F
Personnel Man 2		NP 91420-D
Quartermaster 1		NP 91251-1A
Quartermaster C		NP 91252-1A
Handbook for Dental Equipment Maintenance & Repair		
Baker's Handbook		NP 91689
Gunner's Mate 3, Vol. I		NP 91309 C
Gunner's Mate 2, Vol. II		NP 91352-B
Gunner's Mate 3, Vol. III		NP 91353-A

HOW DID IT START

Hospital Corpsmen

Hospital Corpsmen have distinguished themselves in time of war over and over again since the Hospital Corps was founded by an Act of Congress on 17 Jun 1898.

One example of the courage of these Navy medics was exhibited by Robert Eugene Bush, hospital apprentice (now hospital corpsman) first class, USN, on Okinawa in May 1945.

For his performance during that battle, he received the Medal of Honor. Here's the account of his action:

"Fearlessly braving the fury of artillery, mortar and machine-gun fire . . . Bush constantly . . . moved from one casualty to another to attend the wounded. . . . As the attack passed over a ridge top, Bush was advancing to administer blood plasma to a Marine officer lying wounded on the skyline when the Japanese launched a savage counterattack. . . . With the bottle held high in one hand, Bush protected his patient against the attackers, drawing a pistol with his free hand, and fired into the enemy's ranks until his ammunition was expended. Then he seized a discarded carbine, accounting for six of the enemy despite his own serious wounds and the loss of one eye." After the enemy was driven back and his patient evacuated, Bush collapsed while trying to walk to the battle aid station.

The courage of this corpsman is not unique among Navy medics. During World War II seven Navy corpsmen earned the Navy Medal of Honor and during the fighting in Korea, one corpsman won the MOH.

The number of men in this corps have doubled many times over since 1898. At the start, there were fewer than 200 hospital corpsman in the Navy. In contrast, on the current chief's list, there are 1030 to be advanced to HMC. Current strength of the Hospital Corps is about 22,700. Among these are some 14,000 petty officers. During World War II, this corps of enlisted medical men reached an all-time high of 137,000.

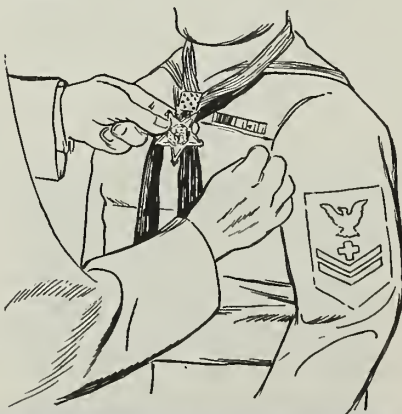
Before the Hospital Corps was founded,

corpsmen were known by many names. Among them were "loblolly boys," "surgeon's stewards," "baymen," and "apothecaries."

The first formal Navy hospital corps school was established at the U. S. Naval Hospital, Portsmouth, Va., in 1902. This school provided basic instruction in anatomy and physiology, nursing, first aid, hygiene, clerical procedures, and litter drill. Since then, as the science of medicine has progressed, the training of hospital corpsmen has kept pace. A second class "B" type school has now been established in San Diego, Calif., plus numerous technical schools throughout the United States.

Although corpsmen are not doctors, or even registered nurses, many of them are assigned independent duty aboard submarines or other ships which have small crews. It is their responsibility to treat minor illnesses and injuries, and to diagnose more serious illnesses when necessary.

Today the enlisted men and women of this Corps constitute a highly respected medical group. Promotion possibilities are good with advancement possible from hospitalman apprentice to master chief hospital corpsman in the Hospital Corps, and from ensign to captain in the Medical Service Corps.



LETTERS TO THE EDITOR

Instructors on NROTC Duty

SIR: How long is the shore duty tour for instructors on NROTC duty? Some instructors say it is a straight three years, while others contend it is the normal tour of shore duty for their rate. Who is right?

And while you're answering questions, will you also answer this one for me? My enlistment expires in September 1960. At that time I will have completed 20 years of service and I will have completed one year of NROTC instructor shore duty.

I have already agreed to extend my enlistment for one year. Can I now extend for two years, and complete my shore duty, or will I be limited to one year?—J. J. F., QMC, USN.

• Regarding your first question, both groups are right. Personnel who reported for instructor duty on 2 Jun 1958 or before were assigned for a three-year tour. Those who reported for instructor duty after that date were assigned to tours determined by their rate.

So far as your extension is concerned, you will be able to extend to complete your shore duty. Your CO may cancel a one-year extension for the purpose of executing another extension for two years, or he may cancel the one-year extension and let you reenlist for two years.—Ed.

Shore Duty Billets for RDs

SIR: I am an RD1 completing a two-year tour of shore duty at GCA Unit Four, NAS North Island. I would like to know if it is possible for me to change my rating to Air Controlman.

I have attended AC(A) school, and

16-Inch Guns

SIR: I've never served aboard a ship large enough to carry 16-inch guns. As a result, I was at a disadvantage during a recent discussion concerning the subject. A statement was made that gun crews must be clear of the interior of 16-inch gun turrets when those guns are fired using full-charge.

Is this correct, and if so, under what circumstances?—L. R., LT, USN.

• We've never served aboard a ship carrying 16-inchers either, so we took your question up with the Bureau of Weapons. Here's what they had to say on the matter:

"All gun turrets are fixed using full-charge with the gun crews on station in the turret chambers."

Does this answer your query?—Ed.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

while at GCA No. 4 served as a qualified controller. My job code number was Air Controller 6922—at present I carry 6922 as a secondary NJC.—I. L. D., RD1, USN.

• Billets have been established in GCA units ashore in order to provide shore duty for some RDs. These billets employ the skills of the Radarman, and at the same time provide some shore duty billets for the rating on the sea-shore rotation.

There are no plans for changing the rating of Radarmen serving in such billets to Air Controlman. Obviously, if this were done, shore duty billets for RD would be reduced even more.—Ed.

Air Controlman Rating

SIR: We Air Controlmen hear many rumors regarding our future. For instance: Is it true that our rating is to be changed to RDA (Radarman, Aviation)? If that is the case, what disposition will be made of those AC personnel who do not want to shift over?

Rumor No. Two—Does forthcoming policy call for Navy air control people to be absorbed by the Federal Aviation Agency? If so, how and when?

New subject: I served on board *uss Indiana* (BB 58) for more than three years during World War II. Can you tell me what ribbons and awards *Indiana* earned while she was in commission?—R.S.D., AC1, USN.

• Calm yourself. The Navy has a continuing need for the Air Controlman rating, and there are no plans afoot to switch men currently holding that rating to another field.

As for rumor No. 2—While the FAA may assume greater control over continental air spaces in the future, the agency will not absorb the AC rating. There will merely be a greater degree of coordination between the Navy and other aviation agencies. Air Controlman duties and billets are expected to be very similar to those now in effect.

The only major change at present being considered is to transfer the Air Controlman W (Airborne CIC Operator) rating to the AT rating at the third class petty officer level only. Navymen

in the ACT and ACR ratings at the third class level, and all AC personnel of pay grade E-5 and above are expected to be retained in the rating.

In regard to *Indiana*—since her commissioning on 30 Apr 1942 she has earned the following awards: American Campaign Medal; Asiatic-Pacific Campaign Medal; World War II Victory Medal; and Navy Occupation Service Medal (Asia Clasp).

You are entitled to all of the above awards except the NOSM (Asia Clasp) which the ship earned for occupation duty from 2 through 15 Sep 1945, after you were detached.—Ed.

Fueling Six

SIR: In your February 1960 issue of *All Hands*, you told about four ships, then five ships being refueled simultaneously alongside a tanker. That's good, but here are two better.

In 1943, while moored to buoy seven in Havana Harbor in the New Hebrides Islands, *uss Lackawanna* (AO 40) had *Cony* (DD 508), *Conway* (DD 507), *Eaton* (DD 510) and *Waller* (DD 466) refueling to starboard and *Denver* (CL 58) and another destroyer refueling to port.

I remember that particular time because it was the first time I saw my brother during the war. He was an SM2 on board *Conway*.—Robert E. Zornes, SMC, USN.

• Records they come and records they go, and as usual, they grow and they grow. It seems to us that you have a claim here that is going to be hard to beat. We don't claim six ships to be a record, but can anyone prove that it isn't?—Ed.

New Seabag, Thirty Day's Leave

SIR: A shipmate of mine says that during World War II the government paid a bonus of \$500 to Navy-men who survived the sinking of their ships. I say all they got was a new seabag and 30 days' leave.

Some of us survivors are still around, and I never received or heard of anything like that.

Who is right?—C. R. B., SF1, USN.

• You are, CR.

There were no statutory provisions for the payment of any such bonus.

As you say, survivors were given a new seabag and 30 days' leave. In addition, they received all the pay and allowances to which they were entitled while in a missing-in-action or prisoner-of-war status.—Ed.



FOLLOW THE LEADER—Flagship of DesRon 32, USS Mullinnix (DD 944), is first of squadron to head for berth at Norfolk on return from Sixth Fleet.

'Always Going' AGRs

SIR: The letter from the commanding officer of *uss Outpost* (AGR 10) in your January Letters to the Editor column concerning the hours steamed by *Outpost* during fiscal year 1959 was noted with interest by all *uss Protector* (AGR 11) personnel.

Even though *Protector* is in the same squadron, the nature of AGR operations dictates independent steaming, and our diehards had to see if *Protector* had outsteamed *Outpost* during fiscal year 1959.

A careful check and recheck of the logs for that 12 months indicated that

Protector was underway 5853 hours and 19 minutes, or 66.9 per cent of the time. And while we feel sure that some other U. S. Navy ship, somewhere, has outsteamed us, we would like to invite the crew across the pier to tip their hats to our "Has Done" crew and to come on over and inspect our slightly larger caliber steaming battery.—LT R. F. Campion, Jr., USN, Executive Officer, *uss Protector*.

SIR: This is to answer LCDR Jones' letter regarding sailing hours of *uss Outpost* (AGR 10). He is proud of his ship, but it is impossible for him to be

WHO HAS BEST mess ashore and afloat? By the time you read this the Ney Awards for 1960 will have been made to best ship and land establishment.



more proud than we are of *uss Guardian* (AGR 1).

Since 1935, *Guardian* has missed only one day on station. And then, not because of breakdown, but because of a death in the crew. We think this speaks well of our engineering force.

During calendar year 1958, *Guardian* logged 4785.5 hours for an underway percentage of 54.6. This period included a 60-day yard period in Boston.

In 1959 we were underway 5661 hours for a hat tipping 64.6 per cent. West Coast AGRs may have logged even more hours, but one thing is sure, when more steaming is done, an AGR will do it. One member of our crew swears that the AG in AGR means "Always Going."—The chief's quarters, *uss Guardian* (AGR 1).

• We told LCDR Jones that if his underway percentage of 59.44 for fiscal year 1959 was bettered, he would hear about it. He did.

And we don't think we've heard the end to this story yet.—Ed.

Snow Job

SIR: Your March 1960 issue (page 31) carried an article written by Fred W. Doby, JO1, USN, entitled "Navy Seabees have plenty of 'Snow How'." Among other things, he wrote: "The Navy's first major field experiments in snow compaction were conducted on the Greenland icecap in 1953 and '54."

Maybe the word "major" is the key. At any rate, I was with CBD 1801 from March 1950 to April 1951 at Point Barrow, Alaska, and it seems to me that snow compaction was one of the tests we were involved in. We had most, if not all, of the equipment mentioned in Doby's article.

So "major" or "minor," I contend that we ran snow compaction tests at least three years before the Greenland project. In fact, I wouldn't be surprised if the tests weren't going on a few years before I got there. Seabees have been in Point Barrow since at least 1945, and probably earlier.—R. I. P., DMCA, USN.

• We wouldn't be surprised if you were right.—Ed.

Viet-Nam Ribbon of Friendship

SIR: Your February 1960 issue (Letters to the Editor, Page 44) lists the ships and units eligible for the Viet-Nam Presidential Unit Citation—The Ribbon of Friendship.

I noticed in the list the names of many ships and units to which my old ship, *uss Merapi* (AF 38), furnished services. I think that if the records were checked it would be found that *Merapi* should also be eligible for the award. We were there for quite a spell, and saw much that was going on.—B. L., SKC, USN.

• According to the records, *Merapi* did participate in the evacuation of civilians from Viet-Nam.

However, the citation as written and awarded by the Viet-Nam Government covers only the months of August and September 1954. Merapi did not arrive in Indo China until 6 Oct 1954. Thus, she and some other vessels which took part in the operation are not eligible for the Ribbon of Friendship.—Ed.

Quarters for Muster

SIR: I have been aboard four aircraft carriers as a member of the Staff and of the Air Group and I have a query about the correct procedure for Quarters for Muster and morning colors aboard ship. I rather doubt that the way I have seen it done is the proper one.

Here's the way it has been done. Quarters for Muster was listed in the Plan of the Day as 0745. Yet, unless every man was in place and mustered by 0735 the Squadron CO could not report to the Air Group Commander by 0740, and the CAG couldn't further report to the XO by 0745.

Promptly at 0745 the word was piped "All Hands to Quarters for Muster," all hands having been there 15 minutes already. This word implied (at least to me) that 0745 is the time to go to muster. The POD implies that if you are not in ranks by 0745 you are late. Both implications are wrong.

About 0750 the crew was dismissed. If the weather wasn't too bad, many men milled around until 0755 when "First Call" was sounded. This resulted in a steady exodus from the weather decks. When "Attention" was sounded one would think an aircraft was about to crash. All hands, except for a hardy few who knew better, dived for the nearest hatch to escape having to stand at attention and salute.

I wonder if this is the result of good leadership?—W.S., LCDR, USN.

• *Quarters for muster and morning colors is so much a routine that sometimes, apparently, not enough thought is given to correct procedure.*

Actually little is said in regulations and instructions about correct procedure for quarters. Article 0708(2) of "Navy Regulations" requires that under ordinary circumstances, quarters for inspection will be held daily. Article 0708(5) further requires that a muster of all persons attached to the command be made daily.

Actual procedures are discussed in more detail in NWP 50. Article 133 tells type commanders to establish standard type shipboard organization and regulations for various ships under their cognizance. Article 134 cautions that for uniformity within types, departure from standard ship organizations on the part of commanding officers should be minimized.

An actual schedule for morning muster and colors for aircraft carriers can be found in Standard Ship Instructions, Aircraft Carrier Types—U. S.



END OF THE LINE—USS Banner (AKL 25) rests at anchor in Hong Kong after the light cargo ship has completed a supply run out of Apra Harbor, Guam.

Atlantic and Pacific Fleets.

0745—All hands to Quarters for Muster

0750—Officers Call

0755—First call to Colors

0800—Colors

0800—Quarters for Muster

0815—Turn to

From this schedule, and after reading these instructions, it seems that the crew should go to Quarters for Muster at 0745, and they should remain there until after colors. If this schedule is followed muster wouldn't be called until 0800, and there wouldn't be any mass confusion when Colors are piped.—Ed.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *uss Chicago (CA 29)*—A reunion will be held on 4 and 5 September in Chicago. For further information, write to Loren R. Thomas, CSC, USNR, 18 South 3rd Ave., St. Charles, Ill.

• *uss Thomas Jefferson (APA 30)*—The 13th annual reunion will be held on 10 September at the Hotel Park Sheraton, New York City. For more details, write to Frank Mancini, 79-12 208th St., Bayside, N. Y.

• *uss Memphis (CL 13)*—The second reunion will be held at the Statler Hilton Hotel, Cleveland, Ohio, 26-29 August. For additional information, write to Sam Worth, 4019 St. 1-more Rd., Cleveland 21, Ohio.

• *uss Quincy (CA 71)*—The 9th reunion is scheduled for 12, 13 and 14 August at the Hotel Park Sheraton, New York City. For further details, write to Robert Moore, 68 Allison St., Roselle, N. J.

• *uss LST 277*—A reunion is

scheduled for 13 and 14 August, at Atlanta, Ga. Write to W. S. Irwin, 2601 LaGrande St., S.W., Huntsville, Ala.

• *43d Seabees*—A reunion will be held at the Hamilton Hotel, Washington, D. C., on 15 October. For more information, write to I. K. Williams, Daniel Avenue, Seneca, S. C.

• *107th Seabees*—The 6th reunion will be held 2-5 September, at the Statler Hotel, Hartford, Conn. For more details, write to John Prindiville, 84 Sumner St., Hartford, Conn.

• *uss Stephen Potter (DD 538)*—All who served on board during the Korean conflict who are interested in holding a reunion may write to John R. Weader, R. D. #2, McClure, Pa.

• *uss LST 504*—A reunion of those who served on board during the Normandy invasion is being planned. For details, write to Richard Tourigny, 182-5th St., Leominster, Mass.

• *U. S. Naval Hospital 59, St. Albans, N. Y.*—All staff members who served from August 1955 to August 1957 who are interested in holding a reunion may write to James P. Dennehy, 950 Woodycrest Ave., New York 52, N. Y. Time and location of reunion are still to be decided.

USS Cleveland in WW II: A Tribute to Great Ship

SIR: Can you tell me whether or not any book has been written about the cruiser *uss Cleveland*? I was aboard her in the Pacific as a quartermaster. She was a very active ship.—V. R., ex-USN.

• Now that you mention it, it seems to us that the publishing field is overlooking something here. You are so right when you comment that she was an active ship but, to the best of our knowledge, no book other than a cruise book has been published concerning Cleveland. Until that time, we offer this condensed version of her career.

Cleveland (CL 55) was the second ship to be named in honor of the Ohio city. The first Cleveland, cruiser No. 19, was built in 1900 at Bath, Me., was commissioned on 2 Nov 1903 and operated on patrol in both the Atlantic and Pacific area. She was stricken from the Navy list on 13 Dec 1929 and sold on 11 Mar 1930.

The second Cleveland, a 10,000-ton light cruiser, was commissioned on 15 Jun 1942. Late in October 1942 Cleveland sailed with a force steaming eastward to invade North Africa. After zigzagging for more than a week through sub-infested waters, Cleveland and *uss Ranger* (CV 4) were ordered to cover the landing of General Patton's troops near Fedala, French Morocco, on 8 Nov 1942.

Following the landing, the two ships continued to patrol about 30 miles off Casablanca. On the second day of the patrol Cleveland lookouts spotted four torpedo wakes off the port beam. Radical maneuvers avoided three of them. The fourth one, when about 300-yards to port, suddenly dived sharply, passed under the stern, and surfaced on the starboard side.

On 11 November the ship rejoined the main group en route to Bermuda. After only one night there, however, the ship got underway for Norfolk, Va., in company with *uss Wichita* (CA 45), three escort carriers and five destroyers, and sailed from Lynnhaven Roads to join Admiral Halsey's forces in the South Pacific.

On 27 January Cleveland joined Task Force 18 in the Pacific for her first

combat mission, guarding a large troop convoy en route to Guadalcanal. As the ships steamed northwestward on the 29th, a flock of Japanese torpedo bombers attacked. This first attack was broken up by an antiaircraft barrage. One plane was shot down.

At 1931, however, the planes were back. This time they penetrated the AA roof. One plane crashed off the port bow of *uss Chicago* (CA 29). The cruiser was silhouetted by the floating bonfire and at 1945 another enemy plane skimmed in and slammed a torpedo into the illuminated ship. Before she could recover, another torpedo struck home. She staggered to a halt; her rudder jammed and her hull listed. *uss Louisville* (CA 28) took her in tow. The following afternoon the stricken ship was detached from the Task Force and headed for Efate with a salvage group. The crippled ship was attacked the following day and was sunk.

After the remainder of the convoy arrived safe at Guadalcanal, Cleveland joined Task Force 68, and sailed on 4 Mar 1943 to bombard Japanese airfields and installations at Vila. Three U. S. planes scouted ahead, and at 2230 the report came of two enemy destroyers at Vila.

The American ships entered Kula Gulf a few minutes after midnight. They steamed in column formation with about 1000 yards between *uss Montpelier* (CL 57), *Denver* (CL 58), and Cleveland as they felt their way down the New Georgia coast on the east side of the Gulf.

At 0057 on 6 March the destroyer *uss Waller* (DD 466) made radar contact with the enemy warships across the Gulf and opened up with a salvo of five torpedoes. Then the cruisers joined the attack. At 0107 the nearer destroyer exploded. Another enemy destroyer was afire, and was an easy mark for the cruisers. By 0110 this destroyer, too, was on its way to the bottom.

The task force ceased fire at 0114 and swung westward to bombard the Japanese airstrip at Vila. For 16 minutes the ships slammed shell after shell into the Vila airstrip and adjacent buildings, leaving it in shambles.

After a short rest Cleveland penetrated deep into enemy-held Solomons on 30 June to bombard the Shortland Islands. This action was to divert attention from the actual objective—invasion of New Georgia.

Following a repair period in Sydney, Australia, Cleveland sailed for Treasury Island where she conducted more bombardments. On the evening of 31 October she sailed with Admiral Merrill's Task Force 39 to the northernmost rung of the Solomons ladder to bombard the Japanese airfields on the Bonis peninsula and on Buka Island. They began shooting at 0021 on 1 November. Thanks to the heavy shelling, there was no serious Japanese air opposition to the amphibious operation on Bougainville.

From there the group again bombarded shore batteries in the Shortlands. Though they encountered heavy return fire, there were no losses and material casualties to the enemy were officially listed at 90 per cent.

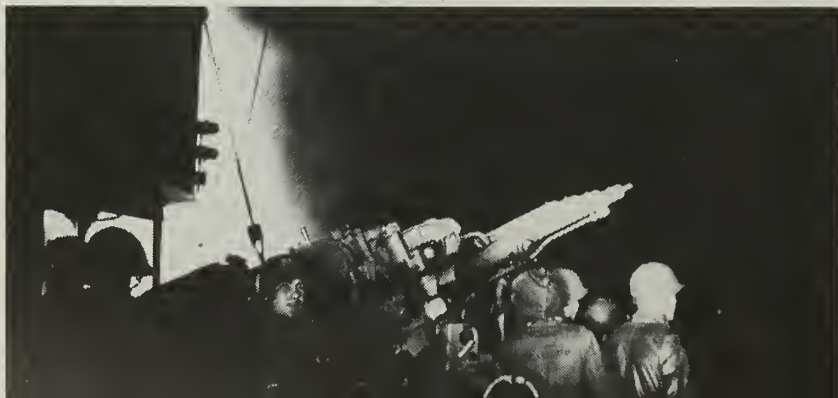
Meanwhile a strong enemy surface force of four cruisers and six destroyers had departed Rabaul to blast the American transports at Cape Torokina, Empress Augusta Bay, Bougainville Island. Admiral Merrill's cruisers and destroyers received orders to intercept this enemy force.

The cruisers made contact with the enemy force at 0227 on 2 November. Maintaining a position that blocked the entrance to Empress Augusta Bay, the cruisers opened fire 20 minutes later. Enemy eight-inch salvos came through the drizzly night and fell 2500 yards short of their target. Radar-controlled fire from Cleveland and the other American ships hit the enemy before he could correct the error.

As the Battle of Empress Augusta Bay progressed, enemy salvos frequently straddled the American ships. *uss Foote* (DD 511) fell out of formation and was hit by a torpedo. While the destroyers of Division 45 continued to hit the enemy force's portside column, Admiral Merrill's cruisers were engaged in a duel with the Japanese heavies. For over an hour the opposing formations exchanged salvos. Finally, apparently convinced that they had tangled with a larger group of cruisers, the Japanese ships pulled out and fled northwest up the coast of Bougainville. The cruisers chased until daybreak, then Admiral Merrill turned back. The entire battle had lasted three hours. The score: one enemy cruiser and one destroyer sunk; two cruisers and two destroyers damaged. The torpedoed destroyer Foote was the only American casualty, and she lived to fight another day.

Dawn brought more than a hundred Rabaul-based enemy dive bombers to attack the main cruiser formation.

CRUISER guns in WW II blasted enemy from Africa to the Pacific islands.



Cleveland gunners got three of the first wave, but not before one plane's bombs dropped close aboard, rocking the ship.

From 13 to 18 February Cleveland patrolled between Truk and Green Islands as American forces captured the latter. From 17 to 23 March the cruiser supported the troops who captured Emirau Island. On 14 Jun 1944, she began a series of bombardments which ended with the capture of Saipan, Tinian and Guam.

Operating for a few days with Admiral Marc A. Mitscher's fast carrier task force was a welcome change from the Marianas bombardments. As part of this force Cleveland participated in the first battle of the Philippine Sea. Though this action was fought primarily by carrier-based planes, Cleveland gunners downed two Japanese torpedo bombers.

After delivering more support fire at Saipan, the ship helped recapture Guam, the first former U. S. possession retaken from the Japanese. Cleveland also supported the landing on Tinian. Here, well camouflaged Japanese shore batteries opened fire when landing craft made a feint at the beach. Fire from all ships converged to silence the Japanese. So heavy was the fire from Cleveland's batteries that a nearby ship reported her hit and burning.

As part of a newly formed task force, Cleveland steamed to Eniwetok, Marshall Islands, where on 14 August Captain (now Admiral) H. G. Hopwood assumed command of the ship. She then proceeded to the Solomons to stage for the invasion of the southern Palau Islands.

From 12 to 29 September she supported the capture of Peleliu, Angaur, and Ngesebus Islands. After this, the 20-month veteran of the Pacific war headed for home. On 21 Oct 1944, Cleveland slid into drydock at San Pedro, Calif.

On 3 Jan 1945, with the ship overhauled and her crew well rested, Cleveland sailed for duty with the Seventh Fleet in the Philippine area. On 9 February the ship anchored at Subic Bay, Luzon. A task group including Cleveland set out from there on 13 February to support the recapture of Corregidor and the landing at Mariveles, Bataan. Cruising through mined waters to within a mile of the Island, Cleveland carried out her bombardment. Coordinated with Army Air Force strikes, this kept the island fortress smoking throughout 14 February, the day of the landings on Mariveles.

Next came the Philippines. Toward the end of February, Cleveland covered the Army's landing at Puerto Princesa, Palawan Island, and after refitting, proceeded to the Visayan area. On 18 March she supported the invasion of Panay, the first of the Army's landings in the central Philippines.

On 17 April Cleveland supported the



Light Cruiser USS Cleveland (CL 55)

Army landings in the Malabang-Parang area of Mindanao Island—the last Japanese stronghold in the Philippines.

On 7 June Cleveland sailed from Subic Bay to participate in the liberation of Borneo. Following the landings, Cleveland was released from the covering force on the 11th and proceeded into Brunei Bay to provide close fire support for the ground forces.

The ship returned to Subic Bay on 15 June and then on to Manila, where General MacArthur and his staff embarked to observe the initial assault on the port of Balikpapan, Dutch Borneo. Three sister cruisers had already wrecked Japanese installations and started large oil fires when Cleveland arrived.

Commencing at 0630 the next morning, the ship started a heavy three-hour pre-landing bombardment of Japanese batteries and encampments. During this action enemy antiaircraft fire damaged one Cleveland spotting plane. It was brought back to the ship safe with personnel uninjured, however.

After a short inspection tour of the port by General MacArthur and his staff, Cleveland got underway for Manila. As soon as the official party had disembarked, Cleveland set out for Leyte as part of a cruiser task force.

This force sailed from Leyte to Okinawa, and then started a series of anti-shiping sweeps designed to insure Allied control of the East China Sea. From 12 July to 7 August three series of sweeps were made along the China coast from Foochow to Shanghai. These were the first surface ships of the United Nations to enter these waters after 7 Dec 1941. Although the force operated close to the mouth of the Yangtze River

night after night, no enemy surface opposition was encountered.

On 10 August when peace rumors reached Okinawa, flares and tracers shot up from the beaches and small craft in premature celebration. But despite surrender negotiations, Japanese planes continued to appear.

During the night of 12 August, a lone Jap plane scored a torpedo hit on the battleship USS Pennsylvania (BB 38) anchored near Cleveland. The following night, a transport was hit by a Kamikaze plane in the Buckner Bay anchorage area. Cleveland was not hit.

With the war finally over, the ship left Okinawa on 9 September as part of a covering force of carriers, cruisers and destroyers detailed to evacuate Allied prisoners of war from Wakayama, Honshu, Japan.

After seven weeks of occupation duties in the inland sea of Japan, Cleveland joined the other forces in Tokyo Bay. After a four-day look at the enemy capital she sailed home to join the Atlantic Fleet.

She carried with her a record of 19 shore bombardments, gunfire support for 14 invasions ranging from Morocco to Borneo, seven enemy planes shot down, blockades and anti-shiping sweeps from the Solomons to the East China Sea, and assists in sinking of seven enemy surface units.

In three years of front-line participation, neither Cleveland nor the members of her crew were as much as scratched but they had seen plenty of action.

In January 1947, USS Cleveland (CL 55) was placed out of commission, in reserve, and berthed at Philadelphia. She was sold on 18 Feb 1960.—ED.

HEADS DOWN—Altogether USS Cleveland gave fire support to 14 invasions.



Waiting List for Advancement

SIR: Your March 1960 issue carried a letter written by C. A. H., YN3, which advocated some type of waiting list on which those persons "quoted" out of advancement could be placed, and advanced later when openings in their rating occurred.

I thoroughly agree with C. A. H. In your answer to his letter you state that the reason a waiting list wouldn't be workable for the lower grades is that so many of those men are on a first enlistment, and only about 20 per cent of them reenlist.

I believe that a system, similar to that used in advancing first class POs to CPO (advancements made in increments, depending on final multiple), would go a long way toward negating that argument. It is my opinion that a first enlistee, advancing to either PO3 or PO2, would think twice about leaving the Navy if he knew that, as a result of passing the examination, he would be advanced to the next higher pay grade within the next year.

I am attached to a Naval Reserve Training Center, and have had the opportunity to talk to quite a few 2 x 6's who passed the examination, but were quoted out. The large majority of these men state that this is the primary reason for their leaving the service, and further, that if they knew they could eventually be advanced, they would sign agreements to remain on active duty. I believe this would affect the Regular Navyman's thinking too, and might easily be the deciding factor in his decision as to whether or not to reenlist. In any event, it could certainly be considered as an incentive to remain on active duty.—G. E. M., YN1, USN.

• As you are already aware, you are not the first, by any means, or even the second, to urge adoption of a waiting list system for the benefit of those men

who miss out on advancement in rating because of quota restrictions. The advancements section of BuPers has wrestled long and hard with this question, and has, for a variety of reasons, decided a waiting list system just wouldn't work. Here is their thinking on the subject.

Ratings, at the E4 and E5 level, which have quota restrictions imposed already have a first term reenlistment rate that exceeds the desired percentage. It's in the technical ratings that first term reenlistments are needed, and in those ratings advancement opportunities up to and including E6 are 100 per cent. A waiting list, therefore, would only compound an already existing problem.

Even with a stable waiting list, moreover, there would be no guarantee that a man would be advanced within a specified time. Waiting lists could be handled in one of two ways.

One way would be to place all men who pass the examination in a final multiple lineal listing—advance from the top—and then place all men who pass the next examination on the bottom of the list in final multiple lineal order.

This would create another problem even worse than quotas. A man could pass the examination with an extremely high score, but could not be advanced until those ahead of him (who barely passed the previous exam) were advanced. This would certainly have the tendency to drive out of the Navy the "cream of the crop," mainly because of the same reason you quoted from the men with whom you talked.

Another way would be to place all men in a final multiple lineal list regardless of examination taken, and advance from the top.

Surely you can see that those men not advanced because of quota limita-

tions would not be advanced in succeeding examinations because of their original low position. In other words, a man might spend years and years on a waiting list, hoping that his final multiple spot on the list would be reached, only to see other men continually move in ahead of him by achieving higher scores in succeeding tests.—Ed.

Deep in the Heart of Deep Freeze

SIR: As a veteran (22 months in Antarctic Support Activities and 14 consecutive months on the ice) I wish to point out two errors I noticed while looking back through a February issue.

On page 42, in reply to a personnelman's request for information, you say that all records and accounts for Deep Freeze are maintained at the individual Antarctic stations. This was true until October 1958. However, at the commencement of Operation Deep Freeze IV all records and accounts were transferred to McMurdo.

The only exception to this was in disbursing. As the outlying stations did not have disbursing officers, ship store sales were made by credit ledger, and the accounts were paid off by the personnel from outlying stations as they passed through McMurdo on the way home. Even though these men could not draw cash, the money due them each month was the subject of a message to each outlying station, and such matters as changes in allotment were also handled at McMurdo.

I also take exception to your "Now Here's This" in the same issue. In an item entitled "Southernmost College," you say *uss Peterson* (DE 152) claims that distinction. But, the University of Antarctica, with classes held in various buildings at McMurdo, is the real titleholder.—W. A. Jackman, PHC, USN.

• It looks as if you've got us cold on both counts.—Ed.

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NEW TWINS—Guided missile frigates USS Dahlgren (DLG 12) and USS William V. Pratt (DLG 13) rest at Philadelphia pier after launching.

Out of Uniform

SIR: The March 1960 issue of ALL HANDS displays on its cover a picture of a chief out of uniform. His hat is not right and he's not wearing the shirt collar insignia as required by Art. 0655, Uniform Regulations.

How many people in the Navy will note this apparent sloppiness in uniform seemingly condoned in the Fleet and at Navy headquarters in Washington? —H. A. Y., LCDR, USN.

• *You're right. We goofed. We check all photos for proper uniform, but once in a while, one slips through. We're consoled by the fact that every time we do, we get plenty of letters calling our attention to this fact. The importance of wearing the uniform properly cannot be stressed too strongly. Now, you Fleet photographers, how about checking to make sure your subjects are in proper uniform before you click the shutter. We'll do better too.*—ED.

Two-Way Winds

SIR: On page 27 of your March issue you ran a picture showing the flags on two destroyers blowing in opposite directions to one another while the ships are nested alongside a tender. You attribute this to "the trickiness of wind currents in Suda Bay, Crete."

During my several visits to Suda Bay I never found the winds unusual. I maintain that if the wind was blowing on the same relative bearing and at the same force upon an AD and two DDs moored in the same manner in any other bay—be it Subic, Guantanamo or Tokyo—the flags would react similarly.

Obviously, the nearest flag is in a

turbulent, back-wind area created by the movement of air around the ships. —George A. Gallant, Jr., YN3, USN.

• *Our expert on wind (a fellow who was once told to go fly a kite—and did) says your explanation sounds quite logical to him. The rest of us aren't so sure.*

Does anyone else think he has a better theory?—ED.

Orders to Helmsman

SIR: On small ships I find some deviations in what I feel should be standard commands or standard procedures. For the record, please straighten me out on these items:

On a single-propeller ship, should the command from the conning officer be, "All engines ahead standard"—or may the "All engines" be omitted?

In giving the command for maximum rudder, should the command be, "Hard right rudder"—or is "Right hard rudder" correct?

On a diesel-driven ship, should the smooth log entry be, "Underway as before"—or "Steaming as before?"—W. D. C., CHMACH, USN.

• *Your first question is answered on page 127 of the Navy Training Publication, Seamanship, NavPers 16118-B, which states:*

"Contrary to the custom when giving orders to a helmsman, the words 'port' and 'starboard' are used when orders are given to the man operating an engine order telegraph on a twin-screw vessel. They are superfluous, of course, on a single-screw ship. On a single-screw ship, each order is so worded that the desired propeller direction is stated first and the desired speed next:



JOINING UP—The National Ensign is raised at stern of the new guided missile frigate USS Preble (DLG 15) during ship's commissioning services.

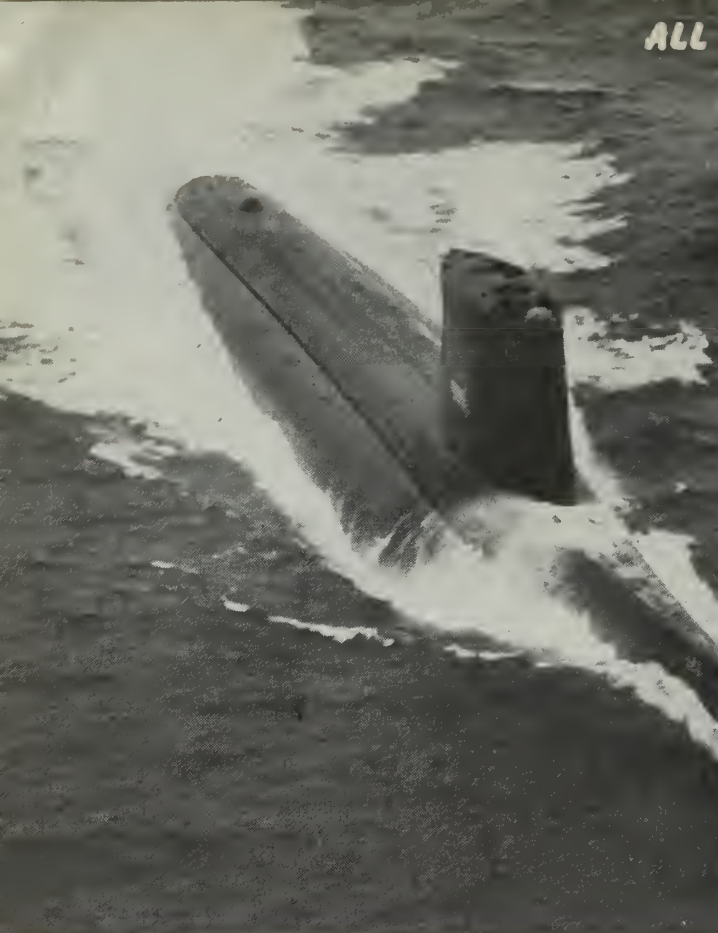
'Back-two-thirds,' 'Ahead-full.'"

Page 126 of the same publication and page 144 of The Watch Officers Guide, Eighth Edition, cover your second query. Both of them agree that the command for maximum rudder should be, "Hard right (or left) rudder."

As for your third question, either "Underway as before," or "Steaming as before" is considered correct. The main purpose of this entry is to imply that the ship is in motion and under its own power.—ED.



FOR REAL—Crew members of USS Canberra (CAG 2) meet a live kangaroo like the one that is on their ship's crest while they visit Sydney, Australia.



12,000 LEAGUES UNDER THE SEA

On 10 May, as the most recent in a series of exploits of USN nuclear submarines, USS Triton, SSR(N) 586 surfaced off the coast of Delaware after a journey of approximately 36,000 miles of submerged travel around the world. She had submerged 84 days earlier, on 16 February.

Not only was this venture of profound significance, it was interesting. Because they make some of the finest reading we have encountered in some time, ALL HANDS quotes at considerable length extracts from Triton's log, as written by her skipper, CAPT Edward L. Beach, USN.

Tuesday, 16 February 1960

1416—Underway from New London in accordance with COMSUBLANT OpOrd 5-60, proceeding surfaced until clear of Block Island Sound.

1543—With Long Island abeam to starboard, entered International waters. Set course due south. In this area the Continental Shelf runs far out to sea and deepens very gradually. Our fathometer registers about 30 feet of water under the keel as we cross Endeavor Shoals bar.

1737—With sounding increasing to 30 fathoms, dived. Continuing on course 180 degrees to clear submarine operating areas. We will be coming to periscope depth occasionally, but we shall not surface until May. Our running depth gradually increases as the ocean bottom slowly drops away.

2240—Changed course to 134 degrees T, on the first leg of our voyage. We will follow this course for 3250 miles to St. Peter and St. Paul Rocks, a lonely spot a few miles north of the equator, lying off the bulge of Brazil. The Rocks will mark the beginning and completion of our circumnavigation of the world; but while

we're at it, we intend to make the entire voyage in the submerged condition.

Wednesday, 17 February

0540—Periscope depth for morning star sights and to ventilate the ship. Our No. 1 periscope features a device by which observations of celestial bodies can be made nearly as accurately as with the time-honored sextant. Until recent years submarines navigated in exactly the same way as any other ship, by using a navigator's sextant during periods when on the surface.

Coming to periscope depth takes time, for one must first listen cautiously at slow speed. The entire procedure of slowing, listening, then coming up and staying at periscope depth to navigate and for other purposes takes a lot of time. We make good use of it, of course, by raising our air induction mast and pumping in good fresh air (thus conserving our precious oxygen supply), setting a radio watch for news and messages, pumping out garbage through our garbage ejector, blowing overboard human waste and wash water from our sanitary tanks, and in general carrying out all functions more easily accomplished while at slow speed or shallow depth.

With the high SOA (Speed of Advance) required to complete our trip within the time allotted, every minute spent at a reduced speed requires many times that minute for recovery of the distance thus lost. One of our objectives is to determine which are the limiting factors for *Triton* and to minimize their effect as far as possible.

Two things now under development will help greatly in the future and are now almost operationally ready:

A really effective oxygen generating system—which no submarine has as yet and on which major research effort is being expended—and a means of determining position by instruments, without celestial observations of any kind. Deep in *Triton's* belly we carry a complicated machine on which research has been conducted for years.

Called "Ship Inertial Navigation System," SINS for short, it measures earth rotation and other undetectable forces by means of extraordinarily precise gyroscopes; and from these measurements automatically calculates our latitude and longitude. Similar computers, taken from discontinued ballistic missiles helped guide *Nautilus* and *Skate* on their polar explorations.

Our SINS is the first production model for ship navigation. Another of our missions is to give it a thorough check-out on a long sea voyage. With SINS aboard, the only reason for observing heavenly bodies will be to run an occasional check to see how it is behaving, and to keep one of the unique arts of the sailor alive. Even so, I venture the prediction that this device will one day spell the end of that time-honored professional—the Navigator of the Ocean Sea.

0640—On securing ventilation, the inboard induction valve would not close. Both the hydraulic outboard valve and the electric head valve had shut properly, however, and, the ship being tight, we went on down anyway. A check of the pipe through a removable inspection plate rewarded us with a smashed and rusted flashlight which had lodged across the induction valve seat, a legacy from some careless workman.

Thursday, 18 Feb 1960

1345—Exercised the crew at general drills. Our routine for the trip will be to exercise daily at one or more



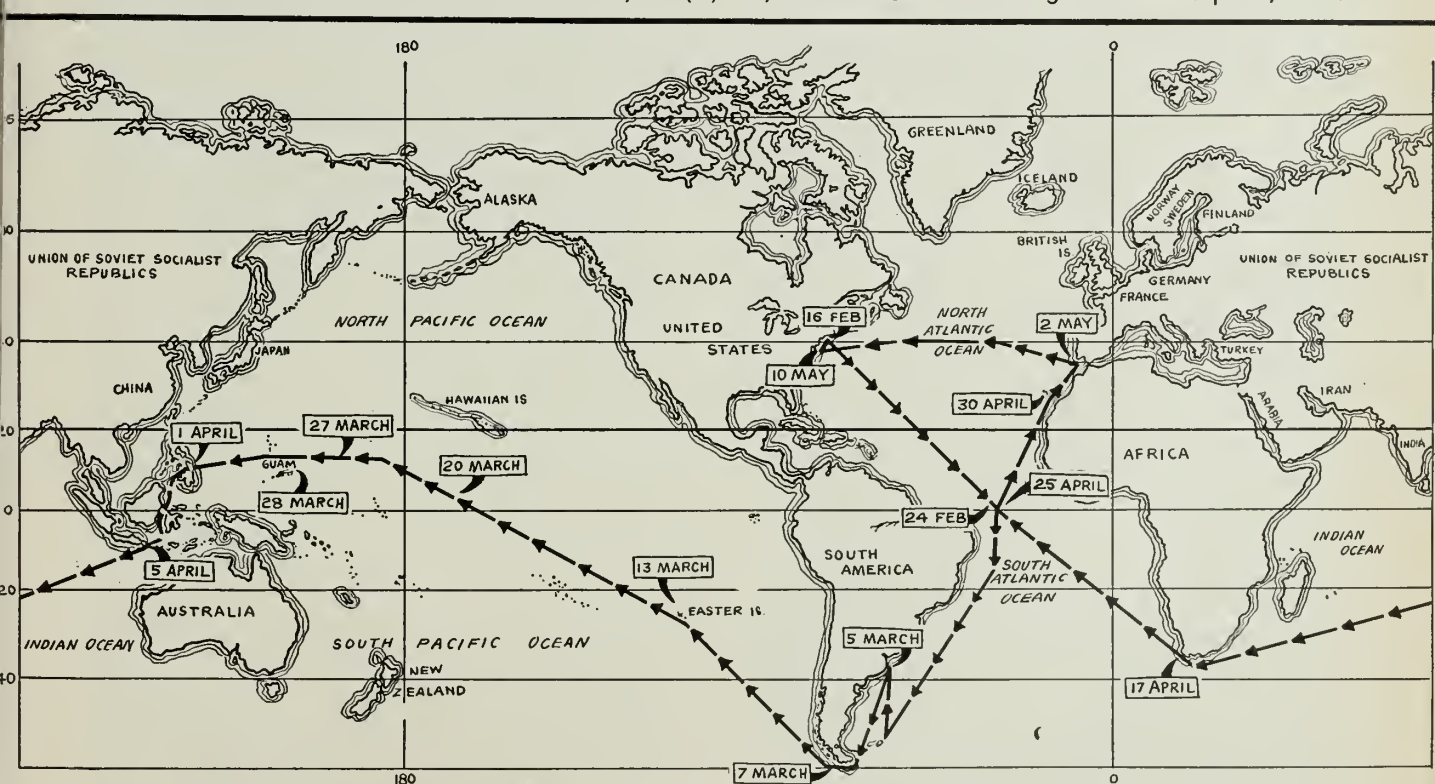
UNDERSEA PLOT—*Triton's* skipper Capt. E. I. Beach, plots course with sub's executive and operations officer.

of the many drills which we, like all naval vessels, must have letter-perfect.

1649—Dispatch from COMSUBLANT informs us that Richard W. Steeley, EN3, is the father of a baby girl. First babygram of the trip—mother and baby doing well.

0235—The fix just computed shows us to have fallen behind our PIM (Position of Intended Movement). In preparation for the voyage, a detailed track chart with our exact routing and times to pass through each point has been left with COMSUBLANT, so that at all times he will know exactly where we are. The somewhat reduced speed necessary for recent repairs has caused us to fall farther behind than seems proper, and it is obvi-

WORLDLY CHART—Undersea route of USS *Triton*, SSR(N) 586, shown here is course Magellan sailed topside, 1519.



ously time we drew upon some of *Triton's* tremendous reserve. With speed increased to flank, our submarine cruiser begins to tear through the water at a speed few ships can match on the surface. And yet, there is no sensation of speed at all.

1300—Released our first hydrographic bottle. This appears to be a good time to start one of the projects of the cruise, which is to release a bright orange-colored bottle once or twice a day, containing a printed Hydrographic Office form requesting the finder, in several languages, to note the time and place found in the blanks provided and forward the paper to the nearest U.S. Government authority.

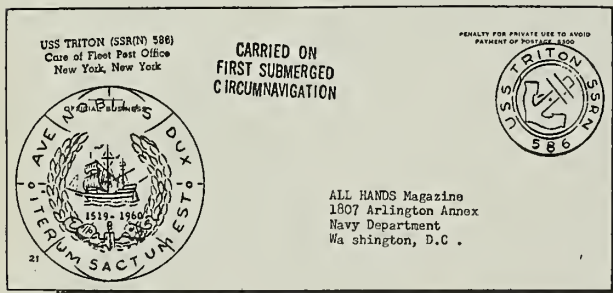
Putting a sealed bottle into the water has turned out to be no problem at all. A standard medical bottle answers the purpose admirably, fitting easily into our submerged signal ejector. It is apparently impervious to maximum submergence pressure and floats neatly out on its own buoyancy when the cap of the ejector is lifted.

Saturday, 20 Feb 1960

0336—Periscope depth for celestial observations, to listen on the radio for any possible message, to ventilate the ship, and to tune around for a news broadcast. This will be our procedure once a night, for approximately one hour. We carry a large supply of stored oxygen and have the latest equipment to remove waste products from the atmosphere inside the ship. All nuclear submarines are fitted with a ventilation tube, identical in nearly every respect to a snorkel pipe except as to size, by which outside air can be drawn in and used air can, in effect, be exhaled. We intend to ventilate as necessary during the first part of the cruise and carry out an extensive "sealed ship" test toward its conclusion.

Monday, 22 Feb 1960

0034—Garbage ejector out of commission with a jammed outer door. This gadget is a large potential hazard because of the frequency of its use and lack of experience on the part of the individuals customarily



handling trash and garbage. But getting rid of garbage is an extremely important morale and health measure. Like all submarines, we insure against mal-operation of the ejector by having a qualified auxiliaryman actually operate the mechanism.

If we cannot clear the jam we may be without ours for the remainder of the trip, and one is reminded of stories of submarines during WW I and even in WW II which brought the entire noisome mess back home. Fortunately, we have an empty torpedo tube to eject from, if we have to.

0126—Ejector door is shut, jam cleared. At least, we now have both muzzle and breech doors between us and the Ocean and can resume normal cruising depth.

Tuesday, 23 Feb 1960

During early morning, sudden and very rapid shoaling was recorded on the Precision Depth Recorder. Normal soundings have been more than 200 fathoms in this area. For fear the shoal might reach a depth dangerous to us, the Officer of the Deck immediately slowed to creeping speed. We passed very slowly over the area, recording a minimum sounding of 930 fathoms, then executed a Williamson turn in order to retrace our track and passed again over the spot on the reverse course. Sounding, 1011 fathoms. Passing over it again on a southerly heading, the reading was 1061 fathoms. The profile of this sea mount shows nearly precipitous sides. Its height above the ocean floor is nearly 9000 feet.

Wednesday, 24 Feb 1960

Today we expect to make our first landfall. This also will be the spot to which we shall return upon completion of our circumnavigation of the globe. Though the *Sailing Directions* describe St. Peter and St. Paul Rocks as bare and useless, interest has run high anyway.

0404—Periscope depth for morning stars to insure our position—no luck—completely overcast.

1136—St. Peter and St. Paul Rocks should be about 10 miles ahead. Periscope depth for search.

1203—Radar contact 136 degrees T, 21,600 yards.

1206—Rocks in sight bearing 134 degrees T. For "The Rocks" to show up so precisely on schedule and so precisely as predicted is a feather in the Navigator's cap. Everyone on board shares in appreciation of an unusually precise navigational accomplishment under sub-average conditions.

1243—St. Paul Rocks is merely a spot where the Atlantic Ridge happens to come above the surface in the form of a group of jagged peaks. This sub-surface ridge runs generally north and south and is the source of most of the shallow spots or "sea-mounts" in the Atlantic basin.

The day is quite calm. There is not much of a swell visible, but breakers and heavy surf foam among the jagged rocks. The whole islet, but a few hundred feet long, can with a little imagination be made to resemble a damaged ship laboriously proceeding at slow speed.

1605—Photo reconnaissance completed. En route Cape Horn.

2004—*Triton* crosses the equator for the first time.

25 February—1 March

The psychologist assigned for the voyage from the Medical Research Laboratory, Dr. Benjamin Weybrew, is supposed to test our over-all reactions during the entire period of the trip. He has already assembled a group of volunteer guinea pigs and is commencing to chart such things as sleeping hours, smoking and coffee-drinking habits, general feeling of lassitude and the like. After he has studied the results and compared them with similar investigations conducted in Operation Hideout and in *Seawolf*, as well as elsewhere, he hopes to make a contribution toward solution of the problems to be faced by *Polaris* missile submarines in a succession of similar long submergences. This data is also expected to provide basic information for future space travel.

Morale is high as we enter into our run for Cape Horn, but at the same time an appreciation of the extent of the trip we are embarking upon has commenced to sink home. It was our Crossing the Line

ceremony which unexpectedly put this into focus. During a previous such observation (in USS *Trigger* in 1952), I had prohibited unusual haircuts by the Royal Barbers for the reason that we would shortly arrive in Rio de Janeiro where, I felt, strange hair styles might reduce the pleasure of our few days' visit. In *Triton*, on this crossing, the circumstances were different. "This time," I announced, when Chief Loyd L. Garlock, who has a long memory, brought up the subject; "there'll be plenty of time for hair to grow back to normal. Have at it!" All over the ship, the short bristles standing in dead white skin, where but lately had been a handsome head of hair, constitute an instantaneous measure of the duration of our undertaking.

It is our "shakedown cruise," of course, in addition to all the rest, and the Executive Officer has evolved a daily program of drills and instruction lasting from 1300 to 1600. This, added to eight hours of watch per day and necessary division work, makes for better than a 12-hour working day. We have, however, neither reveille nor taps. Despite their latter day size, submarines are still so crammed full of equipment that a man not on watch is less bother (and more comfortable) in his bunk than up and about—and more people asleep means less oxygen consumed, less food eaten, more room for watchstanders and men repairing or working on equipment.

A number of men, as a matter of fact, skip meals by sleeping through them. To have all hands ready for the daily drill period, we need some kind of reveille, though it is carefully not referred to by this name. Therefore, we make it our custom to test all our alarm signals—the general alarm, the diving alarm, the collision alarm—every day at 1245, just prior to the beginning of the day's schedule of drills and lectures. It is an effective alarm clock.

A large number of "course books" for study leading to examination for advancement in rating have also been brought aboard, and it is gratifying to see well worn copies appear in the hands of ambitious sailors. As a matter of fact, just before departing on the cruise, a number of candidates from *Triton* were given promotion examinations in a Navy-wide competition. The results, however, won't be forthcoming for sometime.

There is a series of evolutions relating to the ship's own operational development which, because of her newness, we shall have to perform. We must know, for instance, for how many minutes we must suck air through our ventilation pipe in order completely to change the atmosphere of the ship. And we have to know how long we can go before we need to do it again. Simultaneously with ventilating we can carry out numerous other processes, such as taking celestial observations through the periscopes, sending or receiving radio messages, ejecting the hydrographic bottles, blowing sanitary tanks and the like.

Some of these evolutions can be carried out below periscope depth, sometimes at greater cost of a valuable commodity such as high pressure air. High pressure air itself must be conserved, and another of our problems is to see how well we can manage it. As *Seawolf* found during her long submergence, one cannot afford to expel it from the ship. If it must be used, it should be released within the ship after use and recharged back into the air banks via the air compressors.

Our weekly routine is as follows:



HOME PLATE—Saint Peter and Saint Paul Rocks between Africa and S. America marked cruise's start and finish.

Monday and Tuesday are regular days, with drills, lectures, school of the ship and classes during the noon to 1600 watch.

Wednesday is a "Rope Yarn Sunday"—traditional surcease from drills while at sea. During the sailing days this was the opportunity, if weather was good, to get up one's kit for mending or washing, generally to do odd jobs of one's own volition, or just to relax in the sun.

Thursday is a regular drill day. Friday is "Field Day," and is the only day when reveille is held in the morning. After Field Day there is a formal inspection by the Commanding Officer. If you had the four to eight watch in the morning, you also have the 16 to 20 watch that same evening with Field Day and Inspection in between. This makes a long day; but every two weeks we equalize things by shifting the watches.

Saturday is a regular work day with drills in the afternoon. As much as possible Sunday is observed as a day of rest, the only scheduled activities being Church and normal watches.

1 March 1960

J. R. Poole, RMC, has been having excruciating abdominal pains for several hours and it is the conviction of CDR Jim Stark, MC, USN, that he has a kidney stone. Apparently Poole had been suffering a milder ache for several days and had not reported it, hoping it would go away. This has not been the case, and he is now in serious pain.

Poole may have had an unsuspected kidney stone for some time and never known it; but once it starts to pass it must either pass all the way through or else serious complications will result. The passage of the stone is usually accompanied by severe pains of exactly the type Poole is experiencing now, and the only thing to do is to ease his discomfort as much as possible, and wait.

In the meantime I am faced with the problem of what to do if the stone does not pass through. The equipment required is standard in any hospital but we do not

have it on board ship. Where can we take Poole if he needs more attention than Jim Stark is equipped to give? And—will we have to surface to get him there? Will our submerged record be ruined on this account?

1015—Troubles come in pairs. Our fathometer, a sonic depth finder, which has been operating continuously since departure from the States, is suddenly out of commission. This equipment, perfected many years ago by our Navy, has been so dependable for so long as to be taken almost for granted by all ships. Our normal practice in making a transit (except when attempting to avoid sonar detection) is to take and record a sounding every 15 minutes. For this particular cruise a precision depth recorder, or "PDR," has been installed which takes a sounding approximately 30 times a minute and records the same on a piece of specially prepared paper, thus producing a continuous record of the bottom profile along our course-line. It is the PDR which found the previously uncharted sea mounts along our track. Now, however, the fathometer is out of commission and my anxiety about Poole is compounded by worry over it.

Fortunately at the present time we are in an area where the water is deeper than normal for the Atlantic. But we will want that fathometer badly as we approach Cape Horn. It is also apparent that submarines need fathometers more than other ships. The biggest surface ship will rarely worry much about water known to be deeper than 100 feet; but our modern deep diving submarine ships need many times that much.

1510—Progress report on Poole indicates no improvement yet. The trouble with the fathometer, however, has been localized as a transformer and two crystals blown in the receiver, most probably because of insufficient cooling.

1915—We have been running in gradually shoaling water all day long, searching ahead and both bows with our echo ranging sonar, due partially to our anxiety regarding the fathometer and partially to unfamiliarity with effects to be expected. A great number of possible

BETWEEN WATCHES *Triton* crew member enjoys snack as others relax at chess while under the Pacific Ocean.



contacts upon close investigation are evaluated as schools of fish, temperature anomalies in the water, or possible pinnacles well below our actual depth. In the meantime, what had started out as a rather quick replacement of parts has become a lengthy repair. The water has commenced to shoal rapidly according to the chart and navigational worries are commencing to assume greater proportions when compared to medical or nuclear worries than they had a few hours ago. At this time good news is reported. Our fathometer is at last back in commission. It may be lacking a little in power because of the deterioration of the transducer, but it works very well. The precision depth recorder also is back in commission and we lay on a rigorous program, it is probably needless to say, to watch both carefully from now on.

2 March 1960

0232—Possible submarine contact. We are in fact within about 300 miles of Golfo Nuevo, where the press has recently reported unknown submarines under attack by the Argentine Navy. In their present state of mind the last thing we want to do is to make contact with a vessel of the Argentine Navy. Even though *Triton* would most likely be able to show them her heels, the repercussions could not fail to create public notice. But, of course, there is always the possibility that this is indeed a submarine contact. Maybe the Argentines had something; we decide to investigate.

0235—Slowed and reversed course to investigate the contact. It looks pretty real.

0258—Periscope depth for further investigation. So far as we can tell, this is not a surface ship; and our contact definitely has movement. It is not on the bottom. As we slowly and cautiously draw closer, however, it commences to fade and change shape. Final evaluation; a close pack of fish moving around and feeding, and probably wishing this huge intruder would leave them alone.

0420—Another large school of fish. Classification is easier this time. It looks just like the last.

2230—Second "babygram"—James John DeGange, EMC, had a 7-pound girl on 1 March. Both well.

3 March 1960

At this point Jim Stark reappears, his recent good cheer notably absent. Poole has suffered a third and by far the most violent attack of the entire series. In this instance, in Jim's opinion, there is no telling how long this will continue and to what condition he will ultimately be reduced. Nobody wants to turn back. Poole himself begs that we go on, says he is sure that this will be the last time. Everyone in the ship seems to be staring at me.

It isn't as though I have not had plenty of opportunity to think the situation over. We certainly cannot go on like this. It is my duty to get our shipmate to a place where he can receive X-rays and special studies, and as soon as possible. We dare not go farther. Since we were informed by dispatch several days ago that *USS Macon* (CA 132) was in Montevideo Harbor, I made the decision to go in there.

The decision made, it is simply done. I pick up the telephone, call the officer of the deck, order him to change course to head for Montevideo Harbor, increase speed to maximum.

1248—Periscope depth to transmit our message re-

questing assistance from *Macon*. There is just one way in which there may be a reasonable possibility of not aborting our unprecedented submerged voyage, and it is really entirely out of our hands. After a terse statement of the situation, we simply announce that we are heading at maximum speed to a point off Montevideo where we will arrive about midnight on the night of the 4th of March. "Can the *Macon* meet us there, receive Poole, and take him to where he can get the help he needs?" is the plea we compress into brief naval phraseology. In the meantime, Poole is having an extremely bad time. J. M. Meaders, HM1, is perched on a ladder alongside his high bunk on watch over him. There is no sick bay in *Triton*, but here is one thing I can do for Poole. There is one place in the ship where a sick man can have room for an attendant and equipment, not to mention being out of the gaze of his worried shipmates. Everyone feels better after we move him into my bunk. And now that he has the space to lay it out, Jim moves in oxygen gear and covers the desk with medical gadgetry of all kinds.

Since turning back, except for the time spent transmitting our call for help, *Triton* has been racing northward, deep beneath the sea, at the maximum speed that her two propellers can drive her. There is no noticeable motion in the ship, not even vibration. All we note is a slight drumming of the superstructure from her swift passage through the water. Forward she is as steady as a church, as solid, and as quiet.

2300—Periscope depth. Maybe there will be a message for us—there could be, though it is probably too soon.

2325—There is, indeed, a message for us from Admiral Dasplit. Admiral Stephan is getting underway in *Macon* and will meet us at the time and place we have requested.

The news is immediately announced to the entire ship and at the same time we can now announce how we shall handle the rendezvous and transfer. We will not surface, at least, not fully. With Poole and the "topside party" in the conning tower, we will seal it off from the rest of the ship by dogging down the lower hatch. Then we'll 'broach', that is to say, get the upper part of our sail out of water high enough to open the upper conning tower hatch. The broached condition will in fact make the transfer easier, since we'll not be so high above *Macon's* boat. Poole will be all ready, all necessary papers strapped to his belt, and once he's in the boat we'll simply ease back down and be on our way.

4 March 1960

Flank speed all day. One can almost become lyrical thinking of the tremendous drive of the dual power plant of this grand ship. Except in calm water, there are probably not more than a few dozen ships in the world which can go as fast as we are right now, and we are doing it deep beneath the surface where they can't go. LT Curt Shellman, Main Propulsion Officer, reports with delight that the engines seem to be running smoother and quieter at flank speed than they were at our normal cruising speed, in itself pretty fast.

5 March 1960

Our rendezvous with *Macon* is for 2 A.M. At 0100 we slowed and came to periscope depth. *Macon* is out there waiting for us.

The rendezvous is perfect. She is heading south, we north, and the two ships meet at the designated position.



PEEK-A-BOO—USS *Triton* comes up to periscope depth in Magellan Bay in Philippines. Native looks startled.

0245—Approximately in position for the transfer.

0250—Broached on safety tank. Ships' draft reduces to 40 feet, indicating that the top of the conning tower is five feet out of water. All hands are ready; the lower conning tower hatch is shut. I hastily don a jacket and a cap and then direct Curtis K. Beacham, QM1 (SS), to crack open the conning tower upper hatch very cautiously in case there is an inch or two of water above it—which indeed there is. A small cascade pours down through the barely opened hatch, and we jam it shut again. This is remedied by a short blast of high pressure air into our most forward tank, thus lifting the bow a foot or two above the swells and giving a better drainage angle to the bridge.

A second time I direct Beacham to open the hatch, and this time no water comes in. We are out of water. He holds it at a quarter-inch opening for a minute or two to be sure that water is not sweeping over it. None does. We are definitely out. "Open the hatch!" I tell him. He flips it open, jumps out. I am right behind him. As I swing up the ladder to the bridge one deck above, by pre-arrangement Beacham jumps below again and slams the hatch nearly closed, ready to shut it instantly the rest of the way should it swamp.

It is a bit of a lonely feeling to be the only man topside in an 8000-ton ship which is 99 per cent under water. We have been very careful with our computations, but there's always the possibility that some miscalculation somewhere, or a sudden change in water density, might send the whole thing back down again. There is however not much time to dwell upon this, and besides there's very little chance it will happen.

The boat is alongside, bow painter around the cleat and held by Wilnot Jones. Two men in the boat hold her off from our side with reversed boat hooks. Chief Fitzjarrald and Sawyer steady Poole and a couple of the men in the boat standby to catch him. Seizing a moment when the gunwale of the boat is level with the edge of deck, Poole steps easily and quickly into it. It is a stand-

ard Navy motor-whaleboat, evidently *Macon's* lifeboat, manned with a crew of about 5 people. It is a pleasure to watch the boat's coxswain maneuver his frail craft alongside. There is no doubt that he knows his business. Poole hasn't even got wet, and the boat's gunwale has only once touched our side.

In a moment the riding line is cast off. The men with boat hooks push hard, the coxswain guns the engine, and they are away. Another moment suffices to get George and company back on the lower bridge. Then they are below, hatch shut behind them.

We sent a final message of thanks and then, with topside clear and hatch shut, I order Dick Harris, Diving Officer of the Watch, to return to periscope depth. The air bubble in our tanks is released, and gently *Triton* eases her sail into the warm sea. The total time with the bridge above water has been less than an hour. We shape our course at maximum speed southward.

Now that we have successfully solved the difficult problem about Poole, the atmosphere in our ship lightens considerably. With everything wide open, *Triton* is again heading for Cape Horn. This time we will pass to the west of the Falkland Islands and head for Estrecho de LeMaire, a small strait between Staten Island (familiar name) and the main part of Tierra del Fuego. We calculate that we will have gone 2000 miles out of our way on this mercy mission, and it has cost several days. The distance is almost equal to an Atlantic transit.

7 March 1960

0440—Approaching Estrecho De LeMaire. Periscope depth.

0446—Sighted LeMaire light bearing 185 degrees T, right on schedule. After obtaining a visual and radar fix on land, went deep and completed passage through the strait at deep depth.

0934—Exited from Estrecho de LeMaire, changed course to 244 degrees T to head for Cape Horn.

1149—Periscope depth. Sighted Cape Horn, bearing 249 degrees T.

1200—Noon posit—55 degrees—48 seconds South, 66 degrees—33 seconds West. Approaching Cape Horn.

1408—Upon reaching longitude 67 degrees west we have officially passed from the Atlantic to the Pacific Ocean and from the control of COMSUBLANT to COMSUBPAC. We will, at last, carry out the photo reconnaissance practice which had been denied us at the Falkland Islands. Our photographers on photo reconnaissance party, LT Harris and W. R. Hadley, CTC, are on the job and complete their assignment in good order. Photos of this famous Cape will shortly be posted.

Any sailor rounding Cape Horn must, if possible get a look at it. This was considered bad luck in the days of sail, when the sight of Cape Horn was usually the result of either bad navigation or bad weather conditions and generally portended a serious accident. But deliberately sighting the Cape is a privilege. It has consequently been directed that all men aboard one by one, file up into the conning tower and take a look at this Cape which has figured so in the history of our country. With Joe Roberts and his cameras also present in the conning tower it can be appreciated that there was at times a rather heavy traffic load in that tiny space.

Our observations of the conditions make it quite clear why it was such a tremendously difficult thing for old-time seafarers to weather this famous Cape. In the

first place, though we are safely submerged and comfortable, *Triton* is rolling rather heavily. There is an unusually rough sea topside. LT James C. Hay, recently reported aboard from West Milton, has already established himself as a most competent diving officer—but he is having difficulty in maintaining ordered depth today. Good practice for young officers—and planesmen too. We estimate the waves as 10 to 12 feet high and the wind about 25 knots from the west.

1705—We have had to go by the Cape twice in order to permit everyone to get a look at it. Technically speaking we have crossed from the Atlantic to the Pacific, back to the Atlantic, and then back to the Pacific. Now we set forth on the next leg of our journey. Our next stop is Easter Island. Magellan passed by just over the horizon and failed to see it. We have selected it, however, because it is on our track, and because it is about the only point of interest in the immediate vicinity. From Cape Horn to Easter Island is 2500 miles.

8 March 1960

1111—Passed over a sea mount registering minimum depth 350 fathoms. Total height of sea mount 7000 feet above the ocean floor. The Pacific seems to have fewer of these than the Atlantic, probably because there is no sharply discernible mid-Pacific ridge corresponding to the mid-Atlantic ridge.

1325—For the drill today, emergency shutdown of both reactors and loss of all power was simulated. In reality this double casualty is most unlikely; nevertheless it is one we should practice. The drill went very well, and we carried out the procedures laid down in the instructions on operation of nuclear reactors.

Sunday, 20 March 1960

0805—Another submerged ridge, dead ahead. Instead of changing course to go around as has been our practice to date, this time we watch carefully as *Triton* approached the submerged ridge and noted all indications confirming its existence. Minimum depth was estimated at about 500 fathoms; and at the appropriate time as we approached and passed over it, indication was received on the gravity meter.

1800—We are now at our closest point of approach to Pearl Harbor. In honor of the occasion a ship's party has been planned for this moment. Bob Fisher's commissary department, led by First Class Cook William ("Jim," naturally) Crow, has really outdone itself in preparing the traditional fixings for a fancy Hawaiian luau. Even poi makes its appearance (largely due to the efforts of the Executive Officer who, having recently left command of USS *Pickrel* (SS 524) at Pearl Harbor, feels that no luau can possibly be complete without poi. Why he feels this way I will never know, because poi to me is so much paste with neither taste nor consistency; but as has been said upon other occasions, there is not always need for a reason. If tradition demands that we shall have poi at a luau, we shall have it. Besides, Adams made it himself).

Many aloha shirts are in evidence, and a number of beachcomber outfits. Several of the crew have either found or in some manner manufactured straw hats, and despite the crowded conditions existing just before we shoved off from New London, to my amazement a king-size guitar and a set of bongo drums suddenly appear. One or two hula dancers also have showed up,

but somehow, it seems, our party goers would rather have their illusions than face the reality (that is the hairy-legged hula dancers which are the only ones we can provide).

Monday, 21 March 1960

Shortly after midnight, as we came to periscope depth for celestial observations, it was discovered that the sextant built into our new periscope has gone out of order. This will be a serious blow if we can't fix it, ameliorated only by the fact that running submerged as we are we find that our dead-reckoning is most phenomenally accurate. Rarely has our estimated position deviated from our actual observed position by more than a mile or two. It appears that currents and other forces affecting surface ships during transits are much less a factor during submerged runs. To paraphrase an aphorism, "deep waters run still."

0531—Periscope sextant is back in commission as the result of some rather inspired work by L. D. Garlock, FTCA (SS) and W. E. Constantine, FT1, (SS). Good news in one way: a double baby-gram; an eight-pound seven-ounce girl for Leonard F. Lehman, EM1, and a six-pound girl for Richard Brown, also EM1. Birthdates respectively 15th and 18th. Our ship's unofficial cartoonist, Seaman Jim Smith, has drawn up special "Baby gram" forms, in two versions. "Mother's copy" has cupids and hearts, but Father's copy shows nothing but a bunch of pot-bellied old men. Fathers are given both copies, but they are honor-bound to give the one with the cupids to their wives.

Sunday, 27 March 1960

We will soon be passing through our nearest point of approach to the presumed location at which the first USS *Triton* (SS 201) was lost in action during World War II. As a matter of interest, this took place almost exactly 17 years ago, and by a strange coincidence, the first *Triton* departed on her last patrol from Brisbane, Australia, on the same day (16 February) as we, her namesake, departed from New London on this voyage. *Triton I* is presumed to have been lost as a result of depth charge attack by three Japanese destroyers on 15 Mar 1943, in a position almost exactly 800 miles due south of where we are now.

LT McDonald and I decided that a version of the

committal service would be most appropriate, although we could find no reference or description of exactly what we wanted. Improvisation is the order of the day in submarines at sea anyway.

The services were announced at 1340, with directions that all hands not on watch assemble in the crew's mess, the air control center or the officers wardroom. At 1345 the services were broadcast throughout the ship, begun by rendition of tattoo. This was followed by the national anthem and a scripture reading from Psalms 107. Following the scripture reading a short prayer similar to the committal service was read, followed by reading of the tribute, which could hardly be called a eulogy but which was an attempt to put the significance of the occasion into words for our own better inspiration and understanding: The sacrifice made by the first *Triton* and all of those who follow in their footsteps.

Rendering of proper honors gave considerable occasion for thought, and it finally was decided that the only salute a submarine can fire is actually the most appropriate one anyway. Upon command, *Triton's* course was changed to due south and the officer of the deck was directed to stop all engines. The entire ship's company, was then brought to attention by order of the officer of the deck, all directed to face forward. This was, of course, possible even at their regular watch stations, then, with the entire crew silently at attention, the forward torpedo tubes were fired three times in rapid succession.

We could hear the resounding echo of the water ram and feel the fluctuation of air pressure on our ear drums. Three times the harsh war-like note traveled through the ship; and as the last air fluctuation died away, the clear notes of Taps sounded in the distance.

During the approach to Guam, we have remained at periscope depth and have observed considerable activity on shore. Several aircraft are landing or taking off and a helicopter can be seen hovering over the airfield. We can see the planes being hauled in and out of the hangar and we can see people walking on the roads, cars driving back and forth, and other signs of activity. There is one housing area which is very clear indeed on top of a near hill with slope toward sea. We can see the green grass plots, and brown areas where walkways and driveways have been carved out. The houses



WORLD CRUISER—USS *Triton* SSR(6) 586, tests out her two reactors on cruise before taking underseas journey.

12,000 LEAGUES UNDER THE SEA

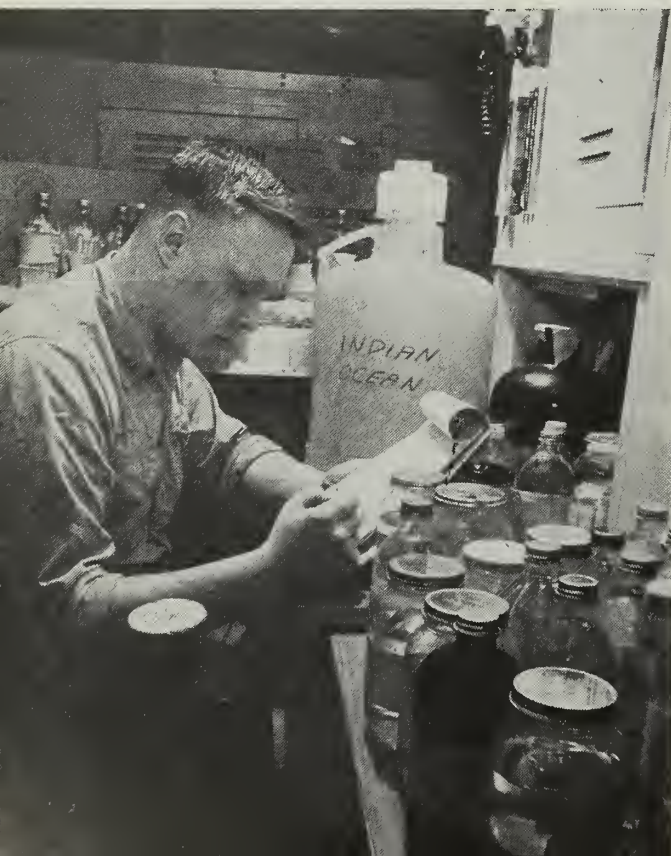
are white or creamed stucco, surrounded in most cases by flowers and shrubs.

Today is a big day, too, for Edward S. Carbullido, SD2(SS), USN. Carbullido was born on Guam and has youthful memories of the period of Japanese occupation during the war. Later, when old enough, he enlisted in the U. S. Navy and has been in the Navy for 14 years during which he has never returned to his home island. Today is, in fact, the closest he has ever been. We wish it were possible to let him go ashore for a few days, and we shall do as much as we can for him.

We spread a map of Guam on the wardroom table and require of Carbullido that he pinpoint, as accurately as he can, exactly the spot where his parents' house is. After we have carried out our scheduled drill photographing the island of Guam, we shall spend a few hours giving Carbullido the best possible look we can through the periscope at his home town. This seems to suit everyone.

It is touching to see the intense eagerness with which Carbullido peers through the periscope, looking for the house he has helped so much to buy but has never seen. With a big grin, he announces that Agat is very different from the way he remembered it. "Many more people," he says, "Many more houses." It is indeed, an attractive modern-looking town. As we draw closer, we insist upon Carbullido identifying his father's house, which he feels he can do from the descriptions and pictures he has received by mail. Finally, with a wide smile, he has it spotted, and we all eagerly take turns to look it over. Even with the periscope at high power and the ship as close to shore as we can bring her, the house Carbullido has selected is only a tiny spot in the

SEVEN SEAS SAMPLES—Water from seas and oceans in which *USS Triton* cruised was collected in bottles.



distance. It is situated as he had described it, on a fairly high piece of ground, near the water but high enough to be free of any danger of flooding.

1630—We have been in Agat Bay an hour and 10 minutes; it is time to go. Regretfully I tell Carbullido that we must put the periscope down and get underway for the Philippine Islands.

So far, at every landfall we have made, there has always been a number of men wanting to come up for a look; off Cape Horn and Easter Island there had been a determined effort to get as many people as possible to the periscopes so that they could say that they had seen them. In this instance, not a soul has asked for permission to come up and take any of Carbullido's periscope time; and if he had been the Captain of the ship himself, he could not have received more attention or assistance from the quartermasters with regard to focusing the periscope, aiming it in the right direction, setting his bearings, etc.

2155—While at periscope depth, having just finished ventilating and making celestial observations, detected an aircraft bearing 064 T, flashing red and green lights and apparently closing, since his bearing is steady. Went deep immediately to avoid detection.

Tuesday, 29 March 1960

1943—Coming to periscope depth for routine night evolutions including ventilating and celestial observations.

1946—Aircraft contact bearing 070 T. Flashing red and green lights. Two nights in succession; maybe we have been detected. Who could be so persistent? Has he figured out our routine? Only a submariner could do that—maybe COMSUBPAC, my ex-skipper, is playing games with us; or maybe the fliers in Guam have some extra gasoline to expend. Possibly they suspect a non-U. S. submarine.

1953—We are being very cautious with our periscopes, taking only short observations and spacing them fairly far apart, in case the plane has a hot radar. Again it is noted the bearing of the aircraft is approximately constant. A few observations and we realize the range does not seem to change. "Let's check the star charts," someone mutters, and all at once I feel like a fool. I run the periscope all the way up and leave it there. In a moment, sure enough, from Chief Quartermaster Marshall in the Chart Room below: "Arcturus bears 070 at this time of night and approximately the altitude we have sighted our aircraft." Furthermore Arcturus is known to have a red glow upon occasion. Our red and green lights are simply refraction through the spray and dampness on the lens at the top of the periscope—not at all an unusual occurrence. Undoubtedly, last night's "aircraft contact" was also our friend Arcturus.

Thursday, 31 March 1960

1307—Sonar contact in sight bearing 347 T—a moderate size freighter, single stack, two masts. This is an opportunity we have been looking for. We have been drilling our approach party but have not had a moving ship to actually work with. As a matter of fact even if we had, we could not have been able to play with any ship, until today, long enough to get much good out of the exercise. Now the situation is different.

1308—Manned tracking stations. We need not ap-

proach the target very closely, and we shall be particularly careful to give no indication that we are present. Submerged submarines are always the burdened vessel in such cases. They must never annoy other ships, and they must never forget that no one can identify the nationality of a periscope at sea.

1332—We have had an excellent drill. The ship has gone by at a good range, identified as a World War II Liberty ship in excellent condition. She is nicely painted with black hull, white stripe and white superstructure. No colors visible, and we were much too far to read the name. But she gave us a fine work-out; and we are much the better for it.

Monday, 11 April 1960

A message from COMSUBPAC relays information from COMSUBLANT announcing prospective promotion of Chief Petty Officers Bennett, Blair, Hampson, Hardman and Loveland to the rank of ensign, and of the following first-class petty officers to the rate of Chief Petty Officer: Hoke, Meaders, Lehman, Mather, Pion, Stott, Bloomingdale, Flasco, Fickel and Tambling. There is jubilation among the lucky advancement winners and good sportsmanship among the others. But this can't be the entire promotion list, since examinations were held before departure for all rates down to third class. More information should be forthcoming soon. Five ensigns and 10 chief petty officers is a tremendous haul for any single ship, particularly one with a crew of only 159.

The opportunity for hazing some of the lucky ones is too good to be missed. One by one they are called before me to be asked, in a grave voice, "What have you done to cause COMSUBLANT to send a message to us about your actions?" The look of incredulity on the faces of the first ones to arrive is real enough, but all ships have a sort of extra sensory communication among the crew, and I doubt if the last few were particularly perturbed by my feigned severity.

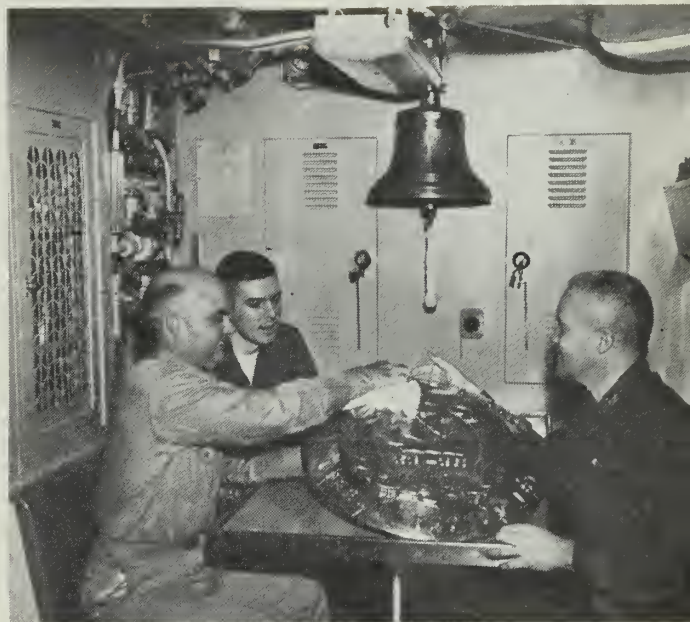
Friday, 15 April 1960

0000—Out goes the smoking lamp, eliciting many unfavorable comments by the smokers, a great air of superiority on the part of the non-smokers. All hands have been carefully briefed for some time as to the purpose of the test and how it is supposed to be run, but we have avoided giving any indication as to the intended length, stating only that the operation order prescribes it shall not exceed 10 days. Ben Weybrew tells me privately that it will not have to be nearly that long, but that he wishes to avoid any complications from anticipation of an early "relight."

In preparation for it LCDR Bob Fisher (SC), USN, (the only Supply Corps officer attached to and serving on board a submarine) has laid in a stock of candy and chewing gum. It is shortly discovered that some of the men had apparently also brought along a supply of chewing tobacco, which introduces an unforeseen variable into Jim Stark's and Ben Weybrew's test. Some of their volunteer subjects had neglected to mention their intentions to chew tobacco in place of smoking during this period. It was noted too that cigars are at a premium since they can be cut into short lengths and chewed also.

Saturday, 16 April 1960

The smoking lamp is still out and the psychological



MAGELLAN MEDAL—Special plaque to be placed on Magellan memorial in Cadiz, Spain, is given polishing.

reaction building up is surprising. Although I had not felt repressed by the atmosphere in any way previously, there is to me, a definite improvement. It feels cleaner, somehow better, and so do I. Will Adams agrees, being also a non-smoker, but nobody else does. Tom Thamm announces that the limits of human endurance had been reached in the first three hours, so far as the smokers of the ship were concerned, and the remaining time of the test is purely a sadistic torture invented by Weybrew and Stark.

So far as the no-smoking test is concerned, Weybrew and Stark contend that they have enough now to fulfill the requirement laid upon them by Medical Research Laboratory. It is also apparent, according to them, and I must confess having noticed something of the same myself; that the test has gone on just about long enough. Overt feelings of hostility are coming to the fore, expressed in a number of small ways, and there have been instances of increasing irritability. Deprived of a normal intake of mild stimulant there obviously have been withdrawal symptoms among the heavier smokers in the crew.

The point is that here in *Triton* the only reason for prohibiting smoking is for a test. Everyone knows it requires but one word, and the smoking lamp will be lighted. Were we in a dangerous situation where safety of the ship or life of personnel were involved, as for example in an explosive atmosphere, the entire situation would be different.

Monday, 18 April 1960

0000—Smoking lamp is relighted. Maybe I am a bit sadistic: no one was expecting it; so instead of directing that the word be passed to relight the smoking lamp, I strolled about the ship smoking a cigar, blowing smoke in the faces of various people inquiring in a pleasant conversational tone, "Don't you wish you could do this?" It took some 37 seconds for the word to get around.

1105—We are passing near a charted sea mount and



OFF-DUTY crew members relax in their bunks during the nuclear submarine's record 62-day cruise around world.

sure enough, the echo-ranging sonar detects it. We are becoming expert at this operation and it is a reassuring one.

Wednesday, 20 April 1960

0100—Crossed from east to west longitude. Today is my birthday and also, incidentally, LT Sawyer's. After dinner I repaired to my cabin to work this report.

2100—Chief of the Ship Fitzjarrald came knocking on my door saying "Something is wrong down in the Mess Hall, Captain; we need you down there right away." This is a strange message for the skipper of a ship to receive. "What's the matter, is there a fight?" I asked, starting up from my desk. It was only a jump down the ladder to the lower deck and forward one compartment into the crew's Mess Hall where I was greeted by popping flash bulbs, a raucous rendition of "Happy Birthday to You" and a tremendous birthday cake. The cake, prepared by Ramon D. Baney, CS2(SS), was about two feet square and two inches thick, with great extravagant gobs of frosting all over it. Ray Meadows, Joe Roberts and William R. Hadley were there too, of course, with cameras en echelon.

Saturday, 23 April 1960

Tonight we are advised by a message that 25 more of our ship's company have successfully passed the examinations for advancement in rate and are to be promoted soon. The news causes excited talk and waves

of mutual congratulations through the ship. Our statisticians are immediately busy and come up with the following rather remarkable set of figures; excluding the five CPOs who are designated for commissioned rank, but including the first class promoted to CPO and the 25 just named, a total of 60 per cent of our men who took the exam have made the next higher rate. Counting only those listed in tonight's dispatch, the percentage is 69 per cent; and if one adds in the five new ensigns, a total of 40 men or 25 per cent of a crew of 159 are to be promoted. Few ships in the U. S. Navy will equal this performance.

Sunday, 24 April 1960

0436—Completed sealed ship test, having run sealed for exactly two weeks. Remaining sealed is considerably less strenuous than ventilating once a day, and we are sorry to go back to the earlier routine. When you ventilate, you are attempting to conserve oxygen and at the same time trying to minimize time at periscope depth. It naturally develops that just before you ventilate the ship her internal atmosphere is at its lowest oxygen, its highest in carbon monoxide and carbon dioxide.

At this time cigarettes are difficult to light, a little exertion sets one to panting and generally one does not feel in the best of form. On the other hand, with the ship sealed you maintain a steady atmosphere and set your equipment to keep it that way.

We have learned a lot about *Triton* during two weeks of sealed ship operations and are extremely gratified with the results. Among other things, we have had no difficulty at all in retaining our precious air inside the ship. But it was a good thing that we recognized the problem, or we might have.

2001—Casualty in the after torpedo room. The manner in which this developed illustrates a point many naval officers are fond of making—there is no sudden alarm, no quick scurry of many people carrying out an expected drill. By the time anyone in authority even knew what had happened, the need for alarm was past. There was left only the correction of the trouble and cleanup of the mess, which took some time. What took place is instructive: The torpedoman on watch in the after torpedo room (Allen W. Steele, TM3(SS) who had only last night been notified of his prospective advancement to second class) heard a loud report, as he later described it nearly like an explosion, followed by a heavy spraying noise. Turning, he saw clouds of oil vapor issuing from beneath the deck plates on the starboard side. Realizing that this was trouble, Steele called the control room and reported a heavy hydraulic oil leak in the stern plane mechanism; then he plunged into the stream of oil hoping to find the leak and isolate it.

In the control room LCDR Bulmer had just relieved LT Rubb of the Conn, preparatory to bringing the ship to periscope depth. Rubb's first indication of trouble came when Raymond J. Comeau, EM2, at the stern plane controls, called out, "The stern planes are not working right, sir!" He had noticed a failure to respond to his control arm movement. At nearly the same moment, the report of a large hydraulic leak in the after torpedo room was received from Steele.

Whitey Rubb's action was the one for which we have

trained many times: "Shift to Emergency!" Comeau threw a single switch, tested controls and reported them satisfactory. This restored control of the ship, but it did not solve the basic difficulty.

In the after torpedo room, Steele determined the leak to be in the stern plane's normal power hydraulic system, and diagnosed it as a hydraulic failure. His third immediate decision was also a correct one. Diving into the midst of the high pressure spray he reached the two quick-closing valves to the supply and return pipes and shut them. One came shut easily but the other was very difficult to move. Desperately struggling with the valve, with assistance by Arlan F. Martin, EN3, who ran to his aid, Steele finally got it also shut. By this time, 15 to 30 seconds after the onset of the leak, the entire after part of the compartment was filled with oil vapor and visibility was reduced to only a few feet.

With the closing of the isolation valves, the oil flow stopped immediately. Steele's action was instantaneous and precisely correct.

Monday, 25 April 1960

0754—Crossed equator for the fourth and final time this cruise at longitude 28 degrees 03' West.

1200—Position 00 degrees 53' North, 29 degrees 01' West. We are within a few miles of St. Peter and St. Paul Rocks, at which point we will have completed

the first submerged circumnavigation of the world. It has taken us exactly 60 days by our reckoning, though as previously stated a person marooned here would have counted 61. But the number of hours would have been the same.

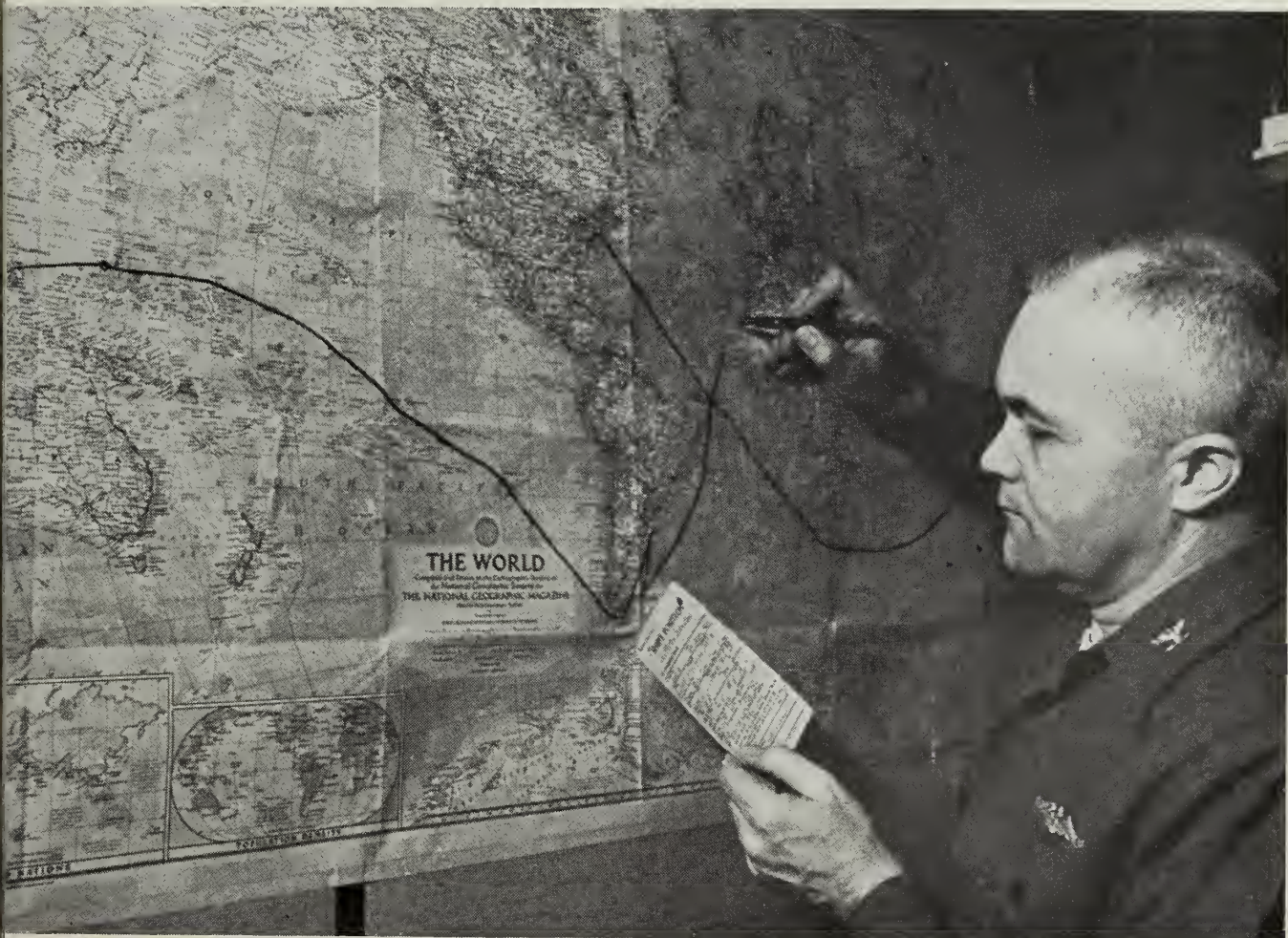
1330—St. Peter and St. Paul Rocks in sight, bearing due west.

1500—First submerged circumnavigation of the world is now complete. We are circling and photographing the islet again, as we did just two months ago. The weather is nice and the sun is shining brightly. Our mileage (Rock to Rock) is 26,723 nautical miles and it has taken us 60 days and 21 hours (days calculated as 24 hours each). Dividing gives an average over-all speed of just over 18 knots.

Tuesday, 10 May 1960

0430—Surfaced, having been submerged exactly 83 days and 10 hours (figured on 24-hour days), and travelled 36,014 miles. The rendezvous is still several hours hence, but we are now approaching the shallow water off the east coast of the United States, and *Triton's* voyage is over.

This account likewise will end where it should be ended—in a United States man-of-war cruising in the free ocean. Which is her natural habitat and which she and her sisters will ever defend.



TRITON'S TRAIL—*Triton's* skipper marks sub's course. Crossing lines mark completion of the submerged voyage.

TAFFRAIL TALK

HERE'S A LITTLE GEM which we ran across in a recent issue of USS *Hornet's* ship's newspaper, "The Hornet Buzz." It's entitled "Now You Can Sail to Japan and the Orient for Less than It Costs to Vacation at Home." This is it:

"*Hornet* and U.S. Navy Lines are offering exciting vacations to Japan, Hong Kong and the Philippines next month.

"For example, a round trip to Manila starts next month. Two hundred and fifteen days of carefree cruising for less than you'd spend at a resort hotel.

"You step aboard your golden *Hornet* and U.S. Navy liner in Long Beach, Pier Echo, or Shipyard.

"In a few short days you're wriggling your toes in the warm sand at Waikiki. Fifteen days later you see Mount Fuji at sunrise as your ship glides into Yokohama Harbor. Japan is at her most beautiful, gay with spring flowers, festivals and typhoons. Your next stop is Hong Kong with its amazing shops where you can have a suit of fine British woolens tailored overnight for 40 dollars.

"The last port of call on your trip can be either Manila, Subic Bay or Guam, '(is good)'. The whole Orient trip takes only 29 weeks and you arrive home completely spoiled.

"The service on *Hornet* and U.S. Navy liners makes you feel as though you'd brought along your own English butler. Your meals are prepared by chefs trained in the finest Continental traditions.

"Your ship has thousands of feet of open deck for daylight games and moonlight strolls. There are movies, parties and all the time in the world for reading the latest editions of Saber or Fabian novels, and meeting new friends.

"And the happy thing is, it's all yours, whether you travel in the elegance of an officer or the gay informality of an enlisted man.

"The Orient is calling!"

★ ★ ★

Here's one for the chiefs. It seems that an unidentified JO in his office (whose initials are HGB) had not worn his chief's hat too long when he went to the Office of Naval Research on a writing assignment. His young son was along. Out came a rear admiral. "What kind of chief is he, Daddy?" asked young son. Quick as a wink, our chief replied: "He's Chief of Naval Research, son."

★ ★ ★

USS *Amberjack* (SS 522) was completing a month's services to destroyers at Gitmo. The usual Captain's Personnel Inspection was held one evening before returning to her home port. At this time, six men were awarded their Submarine Dolphin insignia. As the crew was dismissed from quarters, they carried out the traditional routine of throwing each newly qualified submariner over the side. As might be expected, some of the executioners also went overboard.

The crew of a nearby destroyer had been observing the inspection but was a little baffled by what had happened.

From DD: PVT QM X WHAT HAPPENED.

From SS: UNSHINED SHOES.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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• AT RIGHT: SAILORS ALL—U. S. Navy men on Paris liberty get the word on what to see in the famous French capital from two French sailors at Gar des Invalides. ➤

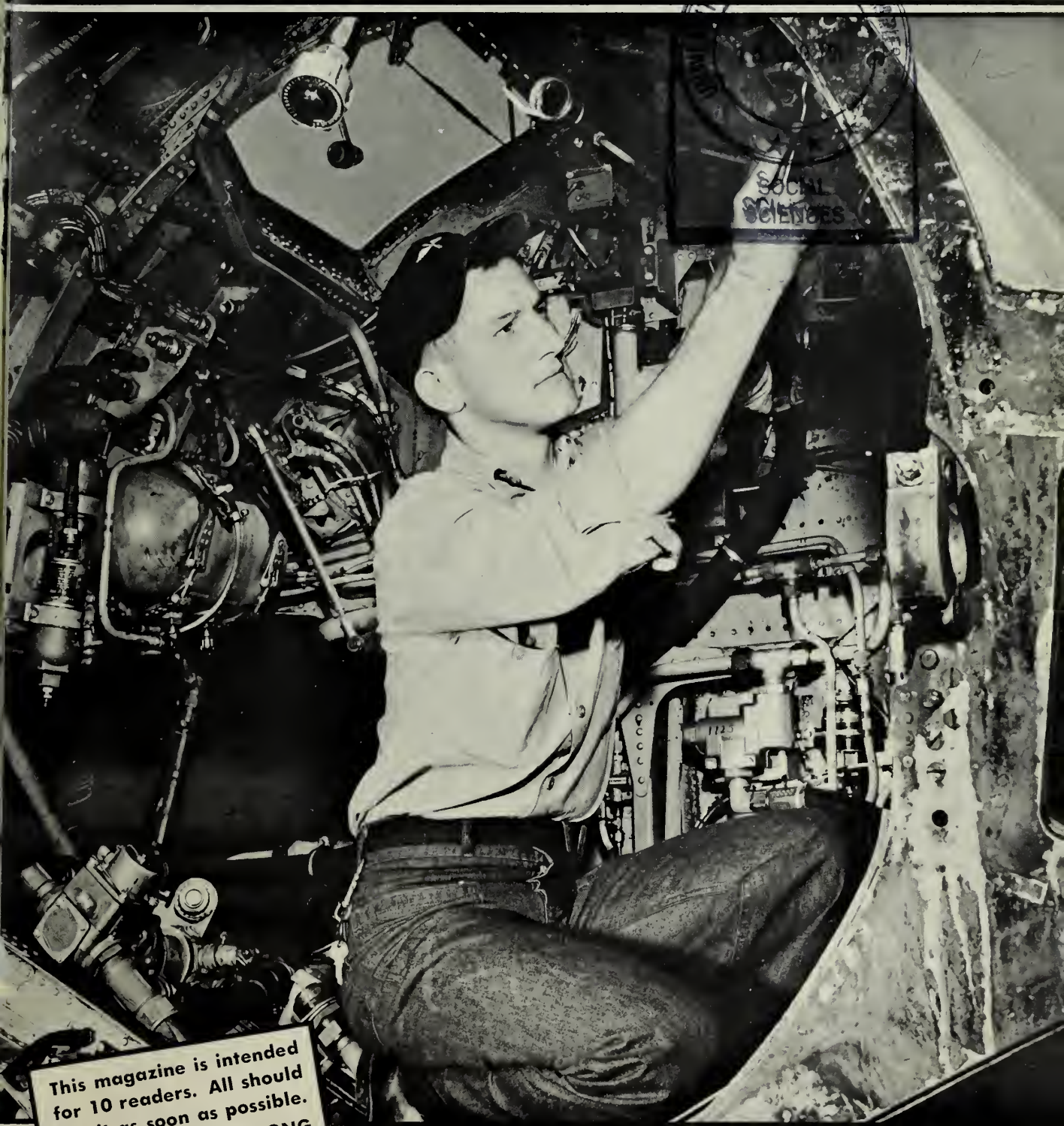




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BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



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AUGUST 1960



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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

AUGUST 1960

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NUMBER 523

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The Deputy Chief of Naval Personnel

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Assistant Chief for Morale Services

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• AT LEFT: SUB HUNTERS—ASW Task Group Alfa sits for portrait. Ships include USS Randolph (CVS 15), destroyers Waller (DDE 466), Eaton (DDE 510), Conway (DDE 507), Bache (DDE 470), Cony (DDE 508), Beal (DDE 471), Murray (DDE 576) and subs Sea Leopard (SS 483) and Cobbler (SS 344).

• FRONT COVER: PLANE DOC—An Aviation Electrician's Mate tracks down a trouble spot in a Navy plane's electrical system. AE's are part of the enlisted ground team whose training and skill keep Navy wings in the sky.

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Flight Quarters

One Navy story that isn't often told concerns the long, dangerous work of airmen on carrier flight decks. There's plenty written about pilots and planes, and countless pictures show jets streaking skyward, but the carriermen who work from 18 to 20 hours a day at sea to put and keep them there go unpublicized.

Here is only a small portion of their story—as seen through flight operations aboard the 70,000-ton supercarrier, USS Forrestal (CVA 59).

AT SEA—generally an hour or more before reveille—the boatswain's mate of the watch barks over the ship's IMC:

"Flight quarters, flight quarters."

AD Skyraider, and the always present 35- to 40-knot winds sweeping across the flight deck which can push a careless airman into danger zones.

FORRESTAL's aircraft-handlers are made up of four divisions:

- V-1, which handles the flight deck.
- V-2, which operates the catapults and arresting gear.
- V-3, which handles the hangar deck.
- V-4, in charge of aviation fuels.

The first hint of activity below decks begins when the Hangar Deck Control Officer and his key men gather in Hangar Deck Control, the nerve center of the two and a half

planes must be spotted precisely—for on a ship space is always at a premium.

While a plane is sent to the flight deck, its model is removed from the mock-up in Hangar Deck Control so that at a single glance the observer can tell exactly which planes are spotted where.

MEANWHILE, topside in Flight Deck Control, the Aircraft Handling Officer and his key personnel, along with the Flight Deck Officer, the flight deck plane directors, and the Catapult and Arresting Gear Officer have gathered for a briefing of the day's activities.

Where the planes will be spotted



DOUBLE TIME—Fast moving catapult crew moves launching gear into place to shoot another jet off into the sky.

For many of the ship's company, the boatswain's bark is worse than his bite and regarded merely as an intrusion. But for the flight deck crews it signals the beginning of a day: a day of long hours that will end only shortly before another day begins; another day filled with constant battle against tight time schedules and the danger which always lurks in the background, danger like the blast from a 10,500-pound thrust of a Skywarrior's jet engine which produces enough heat to burn the skin off a man or enough blast to blow him over the side, or the deadly, whirling propeller blades of an

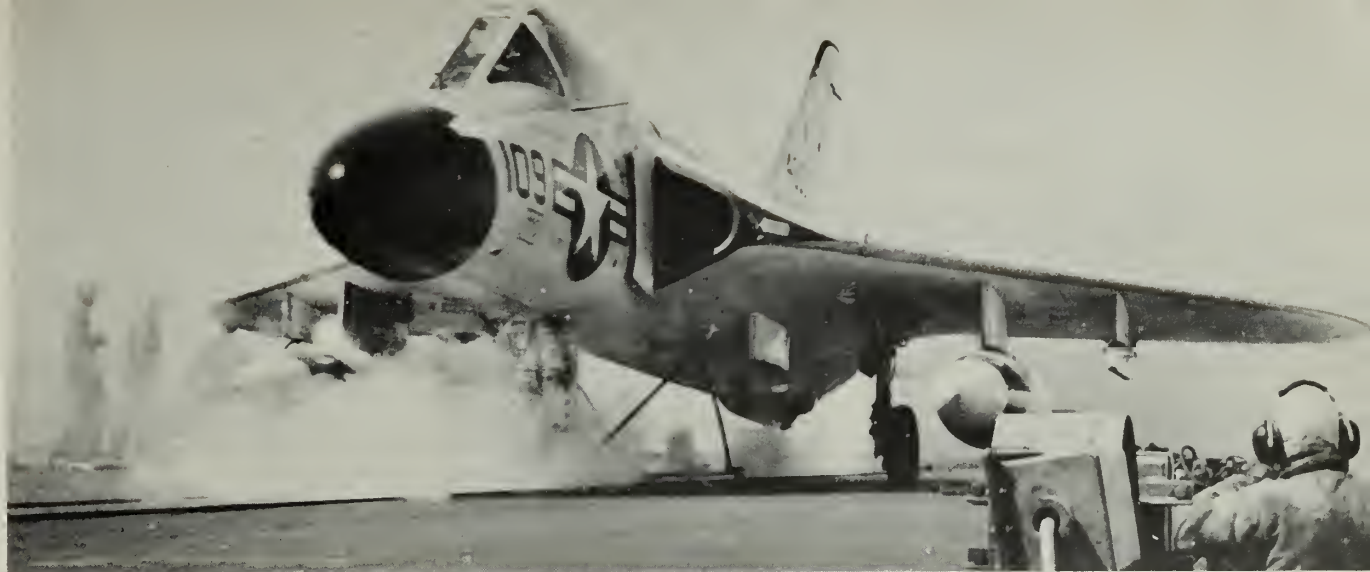
acre, 27-foot high airplane "garage." Their job: to make preparations for shooting the planes topside.

Here to aid them, drawn to scale on a stainless steel table, is etched the outline of *Forrestal's* hangar deck. On the table, small metal models of each plane aboard have been placed exactly where they are spotted.

On the hangar and flight decks is played "one of the largest—and most serious—jig-saw puzzles in the world." To solve the puzzle, carriermen must spot the planes in the most efficient way while considering operational and safety requirements. And the

until they're needed, the order in which they are "fed" for launching, and to which catapults they will go—these are only a few of the factors that have to be considered.

Maintenance and fuel requirements influence the spotting of planes on the giant flattop and if the ship is slated for refueling at sea, the elevators must be free. Which planes will be wanted first: the fighters, heavy attack or light attack aircraft? What air operations are scheduled? For landings, the angled deck must be free, and takeoffs involve deciding which of the catapults must be left free of spotted planes.



ROARING TO GO—Steam begins to rise from cat as F4D Skyray is about to be launched from USS *Forrestal* (CVA 59).

Flight Deck Control also has a stainless steel mockup of the hangar deck, as well as one of the flight deck. The same procedure of spotting model aircraft is carried on here.

THE AFTER BULKHEAD of Flight Deck Control is lined with Plexiglass boards. One lists the maintenance status of every plane on board. Another shows the fuel aboard each plane. The third lists the bombs and missiles loaded on the aircraft.

Three telephone talkers stand between the boards and flight deck mockup and keep the boards.

One talker keeps tabs on maintenance conditions with data from the ship's six ready rooms. Another keeps abreast of the fuel in the aircraft. The third talker moves the templates on the flight deck mockup. His phones are tied in with flight deck talkers, the hangar deck, flight con-

trol, Primary Flight Control and other positions on the ship.

While flight deck personnel are still making their plans, blue-jeaned airmen of V-3 division in the hangar deck begin pushing planes to the elevators.

A 10-ton F4D *Skyray* fighter is pushed by grunting, straining airmen to one of the ship's four 79,000-pound capacity deck-edge elevators for the ride to the 1,039-foot flight deck.

When the plane is topside, blue-shirts of V-1 division take over the pushing chores while a yellow-shirted plane director directs the jet to one of four steam catapults, each of which is said to be capable of hurling a passenger car one mile into the air. (No, no one has tried it.)

ONCE THE PLANE is straddled over the cat, the Catapult Officer

checks to see that the plane is correctly spotted and signals to his deck-edge control operator the proper steam pressure needed for the launch. A heavier fuel load than normal or a shift in wind velocity will affect the amount of steam pressure needed.

Hustling brown-shirted plane captains visually check the plane to see if the flaps are down, speed brakes closed, wings in locked position, and a multitude of small things which could mean the difference between flying or "splashing."

As soon as the checkoff is completed, the "hookup and holdback" crew crawls beneath the plane and hooks the bridle and holdback of the catapult to the shuttle and catapult hook on the underside of the plane. At times the planes are still slowly moving and the crew lying on their backs directly underneath must roll away to the side to avoid the hot

HOOK UP AND HOLDBACK crew crawls beneath plane to secure bridle and holdback of cat to plane's underside.





GOING UP—Men of Forrestal's V-3 Division move Skyhawk on to elevator.

blasts from the jet engine which is only inches above their heads.

When everyone is clear of the readied plane, the Cat Officer circles his hand overhead. As soon as his hand points downward and toward the forward edge of the flight deck, the deck-edge control operator presses the fire button and with a streaking cloud of steam trailing behind him, the pilot sitting high in the cockpit of his plane reaches a speed of 146 knots in the two seconds it takes to travel the 250-foot

distance to the flight deck's edge.

He's airborne!

Immediately another plane is fed to the empty, still steaming, catapult. In sixty seconds, *Forrestal* men can launch four fully armed aircraft.

AFTER ALL THE LAUNCHES have been completed, the job isn't done for the men on the flight deck. The birds must return.

So back on the after portion of the mobile landing field, the Arresting Gear Officer directs his crew in

the preparation of the arresting gear for the returning aircraft.

Airmen check to insure proper control of the valve pressure and mechanical ratio setting of the arresting gear. Soon planes begin entering the landing pattern, following instructions issued by air controlmen in PriFly, the carrier Navy's control tower.

When each plane—prop-driven or jet—catches one of the six arresting cables and comes to an abrupt stop some 225 feet later, crews race out armed with long-hooked poles and disengage the arresting cable if it should tangle or fail to drop from the plane's tail hook.

When the wire falls free, the deck-edge controlman retracts the arresting cable by means of arresting gear machinery located in rooms below the flight deck. Flight deck POs take over and direct the planes to their spotting area and the planes are secured.

But soon the whole process starts over again.

AT THE TOP of the 25-story high flattop, overlooking the four acres of flight deck, is Primary Flight Control. Like its civilian counterpart, the control tower knows all and sees all.

The Air Boss can communicate with virtually every office, space or cubby-hole connected with air operations.

And through the medium of his over-decibed bullhorn, he can clear

FUEL FEEDERS—V-4 Division takes care of aviation fueling problems. Rt: Hangar deck crew moves plane in 'garage.'



the deck of spotted aircraft for an emergency landing, or scare below decks an unsuspecting sea-scanning yeoman standing in the catwalk—an unauthorized area for anyone but airmen during flight hops.

Several launches in one day mean moving every plane on deck several times. And too often after a spot has been made the bullhorn will call for clearing the deck to allow a crippled plane plenty of leeway for an emergency landing—just in case. The 20 or more planes that were just pushed aft for a launch must be brought back forward on the double.

And when the day's operations are over, the "down" aircraft—those with discrepancies—are sent below for maintenance. Others can be repaired on the flight deck, while still others are ready to fly after refueling. Each must be spotted for the most efficient utilization of the carrier's limited space.

PLANES NEED FUEL. From approximately 50 fueling units and over 20 "gas stations," about 10,000 gallons of aviation gasoline, as well as 125,000 gallons of JP-5, a high-energy jet fuel, are dished out each day by the 96 men of V-4 division. Some planes take longer than others to fuel. It takes the redshirts only five minutes to fill the internal and drop tanks of an AD but an A3D requires about 30 minutes to pump the several thousand gallons of P-5 her tanks demand.

With nearly 100 aircraft aboard



ALMOST READY—Final check is made on A4D before signalling to fire cat.

and air operations scheduled around-the-clock, V-4 men have little time to call their own.

Not strictly considered a part of the four divisions which comprise the aircraft handling group is V-6 division—the aircraft maintenance unit.

The seven shops manned by V-6 personnel are responsible for ordering, repairing or manufacturing all of the support equipment needed by planes of *Forrestal's* Carrier Air Group Eight. The only airplane actually overhauled and serviced by V-6 is the ship's TF (carrier on board delivery plane).

"Yellow gear"—Tilley, the giant crane, tractors, starting units, oxygen carts, etc.—these fall under the supervision of the 89 officers and men in the aircraft maintenance division.

At any time of the day or night, airmen in the parachute loft, fire

control workshop, electric, electronic, metal and power shops must be ready to provide test gear for the men and pilots of CAG-8, or to break out or "can-up" engines. V-6 is also responsible for providing all of the squadrons with maintenance spaces and assistance as needed.

From start to finish, hundreds of men are involved in the seemingly simple operation of putting an airplane into the air and bringing it back down again, and 100 per cent cooperation and teamwork is required of everyone—from the LSO to the airman on the gasoline pumps.

"It's exciting, dangerous, and plain hard work," says Air Officer CDR T. J. Taylor, USN. "It demands long hours of physical and mental exertion. It works because each man has an important role to perform, and performs that role."

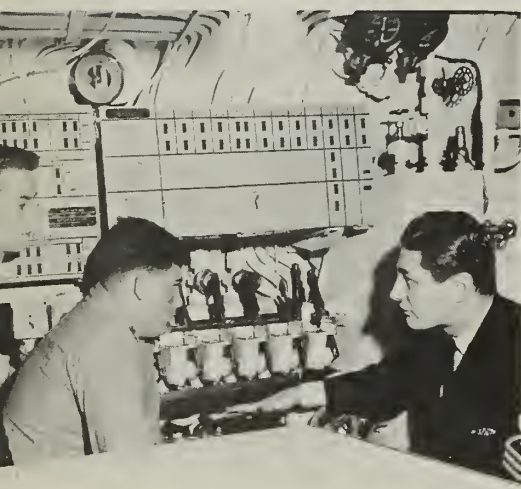
—Bill Ritter, JO2, USN.

HOT SHOTS—Rockets are loaded on wing launchers by members of the carrier's G Division working on the flight deck.





SCHOOL OF THE BOAT was established at San Diego to help relieve the increasing need for qualified submariners.



Diplomas for Dolphins

AS MORE AND MORE nuclear-powered submarines are launched, and as FBM submarines become even more important, the need for qualified submariners increases.

To help relieve the shortage of these Navymen, a School of the Boat program was established in San Diego, Calif., in early 1959 by Commander Submarine Squadron Five.

During the year 247 students have attended Submarine Qualifying courses. Of these, 73 earned their dolphins within six months. Some 177 others completed in-rate train-

ing courses during the first 12 months of operation.

This School of the Boat was organized to:

- Train men in submarine qualification to meet the requirements of the nuclear and *Polaris* training programs.

- Train additional submariners to fill experience gaps as senior petty officers leave conventional subs for the nuclear and *Polaris* programs.

- Raise first reenlistment rates by keeping crews well trained, and by emphasizing the opportunities avail-

ON BOARD USS *Steelhead* (SS 280) future sub men study hydraulic system (above) and torpedo loading (below).





STUDENTS take to the books. Rt: Training sub *USS Trepang* (SS 412) relieves *USS Steelhead*, now in Reserve Fleet.

at School of the Boat

able to individuals who remain in the Navy and in submarines.

uss Steelhead (SS 280) provides actual submarine conditions in which the students may train. Classrooms, a diving trainer, and a submarine main propulsion control cubicle training device are located at the Naval Reserve Center in San Diego. Some in-rate on-the-job training is conducted on board the submarine tenders *uss Nereus* (AS 17) and *Sperry* (AS 12).

Both officers and enlisted men are trained at the school. The officer

courses in submarine systems are usually conducted by lecture tours. The enlisted courses cover all subjects listed in the requirements for enlisted submarine qualification. Instruction is usually divided into three two-week courses, with each week covering one month of qualification requirements.

In addition to regular instruction, the SubRon Five career counselor advises each class regarding advancement in rate, availability of Naval Training and USAFI courses and the significance of GED tests.



UPS AND DOWNS—Sub students get the feel on diving trainer. Above: School turns submarine into classroom.





NAVY'S MOTHBALL

IF WAR SHOULD come to the United States tomorrow, there would be over 900 ships in the Reserve Fleet that could be made ready for battle. Some of these ships could be manned and underway in less than a month. Others would take longer.

To some Navymen, the Reserve Fleet is only a ship's graveyard. But the Navy works hard to prevent that from being the case and to insure that there will be at all times a real "Fleet in Reserve."

This is done by a "purifying" program which sees usable ships maintained while others that have outlived their usefulness being scrapped.

The ships that remain in the Reserve Fleet are ready at short notice for another type of scrap, if necessary.

As part of the Navy's purification

plan for the Reserve Fleet, increasing numbers of ships are being sold. Even though there has been an increase of some 100 ships into mothballs during fiscal years 1959 and 1960, the total strength of the Reserve Fleet has actually decreased by about 380 ships. It's a continuing weeding-out process.

Most disposals during the past two years were pre-World War II warships, and large numbers of obsolete mincraft and amphibious landing ships of the LST and LSM variety.

At the same time about 80 merchant-type ships were transferred to the Maritime Administration for berthing in the National Defense Reserve Fleet. (This is the Maritime Administration's equivalent of the Navy's Reserve Fleet.)

About 50 ships were transferred

to friendly foreign countries under the Military Assistance Program.

During the first six months of 1960, 73 ships (328,395 tons) were sold for \$8,869,989. Another 150 ships are scheduled to be sold during the remaining six months—all part of the "purification" program.

RESERVE FLEET SHIPS are berthed at 13 different locations in the United States:

- In the *Atlantic Reserve Fleet*, there are ships at Boston, Mass.; New York City; Philadelphia, Pa.; Norfolk, Va.; Charleston, S.C.; Orange, Tex.; Green Cove Springs, Fla.

- The *Pacific Reserve Fleet* has units at Bremerton, Wash.; Columbia River, Ore.; and at San Diego, Stockton, Long Beach, and Mare

UNDER NEW COLORS — Spanish Navymen stand formation as U.S. sub is transferred to the Spanish Fleet.



Island, near city of Vallejo, Calif.

The Reserve Fleet group at New London, Conn., is being disestablished this month and the groups at Long Beach and Charleston will be disestablished in the spring of 1961. In recent years Reserve Fleet units have been disestablished at Tacoma, Wash., and San Francisco, Calif.

OBSOLESCENCE is a factor that always has to be considered, even in the moth ball Navy. Some ships remain in the Reserve Fleet for several years even though their armament, fire control and electronics are obsolete.

A good example of this is the battleship. Several are now in the Reserve Fleet. Their hulls and machinery installations are, for the most part, in good condition.

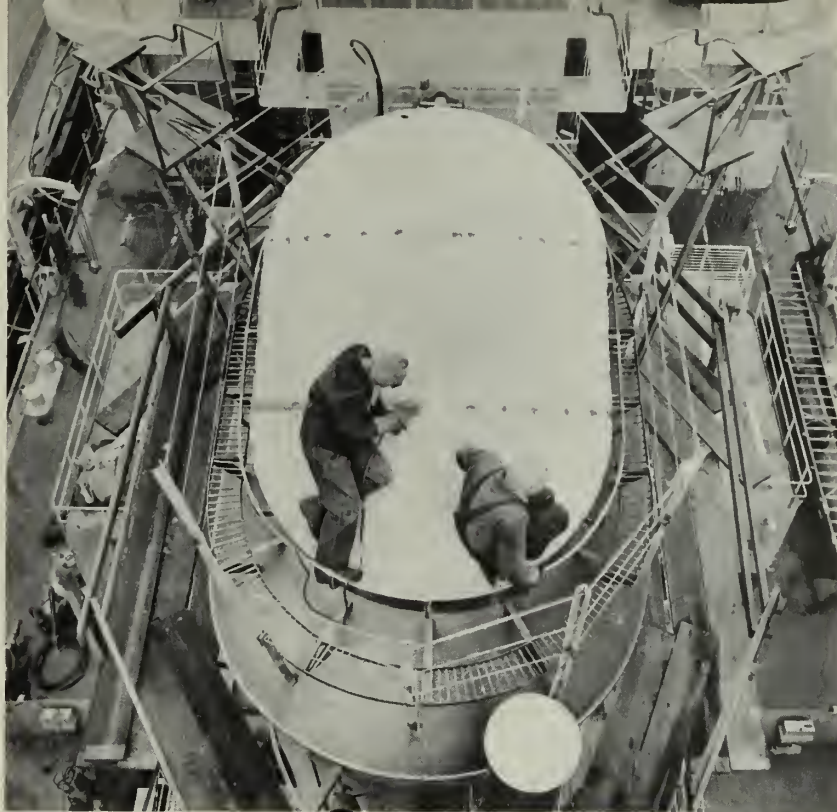
FLEET

It would appear to a layman that these battleships would make ideal guided missile ships—without the expense of building a new hull. At first glance the idea makes a lot of sense, but such is not always the case. Why?

The battleship *North Carolina* (BB 55) is cited as an example. She was built for \$62,000,000 in 1941. To convert her to a guided missile ship (CG) would cost \$170,000,000. On the other hand, a heavy cruiser-type guided missile ship can be built new for \$160,000,000. Besides an initial saving of \$10,000,000, the CA-type would have a smaller complement and be much less expensive to operate. Although the converted BB would be able to carry more reloads, both ships would have substantially the same firepower.

The logical question then is why keep these large-hulled ships at all? Speed of conversion is one reason. Although the cost of conversion would be more, if war comes, ships will be needed in a hurry and a BB could be converted in less time than a CA-type could be built.

NOT ALL SHIPS in the Reserve Fleet will need conversion, however. Destroyer-types stay fairly modern and for the most part have good hulls and machinery. With the addition of some modern electronics gear these ships can be ready for battle



AFT STACK of ship headed for 'mothball fleet' is sealed with metal cover.

in a relatively short period of time.

Some former combat aircraft carriers currently in the Reserve Fleet may be used "as is." For example, there are five un-modernized *Essex*-class ships and two smaller ones which were originally converted during the war from cruiser hulls. These seven ships have good economical modernization potential for HUK operations or as LPH ships.

There are also 13 World War II jeep carriers which could be used by MSTs for point-to-point transoceanic carriage of assembled aircraft although none of these 13 are capable of operating modern naval aircraft.

THE NUMBER of ships that can be made ready for battle is the strength of the Reserve Fleet. What is the "big picture?"

On checking we find that—of the 900-plus ships now in the Reserve Fleet—only six have been built since World War II. These are *Bass* (SSK 2), *Bonita* (SSK 3), *Salem* (CA 139), *Worcester* (CL 144), *Roanoke* (CL 145) and *Wright* (AVT 7).

The other ships are not exactly "relics," however. Every year ships are inactivated. Although most of them were built during WW II, they are now equipped with modern machinery and electronics gear.

PICKLING PROCESS—During phase Bravo of ship's inactivation crew members clean and paint ship inside and out to protect surfaces against corrosion.





MANY CHANGES have taken place since these ships were photographed at Charleston, S.C., in 1947.

Other ships that have been in the Reserve Fleet for several years have also been modernized. In fiscal years 1957 and 1958, for example, about 100 destroyer-type ships were equipped with some modern ASW equipment. Some Reserve Fleet ships are also drydocked for repairs every few years.

NOT ALL SHIPS in the Reserve Fleet are maintained at peak readi-

SOME SHIPS no longer of use to U.S. Navy are continuing to serve under the colors of our allies. Here, a destroyer is transferred to the Greek Navy.



ness. Those ships that will be needed quickly in case of emergency are kept in best repair. They can be underway fully stored and loaded to start shakedown-type training within 30 to 40 days. A maximum of 10 days in a shipyard would be needed to make minor repairs on many of them. (There is one problem with ships in this group, however. Many of them need to be overhauled. This situation exists because of a lack of money when the ships were placed in the Reserve Fleet.)

Other ships, which will not be needed immediately, may need more than 60 days to be ready for service. Repairs on these ships are done only if time permits and for the most part, they are left "as is" after initial moth-balling.

Class "X" ships in the Reserve Fleet are those scheduled to be sold for scrap. Certain equipment must be removed after a ship is so designated before it is actually towed off for disposal. Currently there are 118 "X" class ships in the Reserve Fleet.

RESERVE FLEET SHIPS are carefully prepared for their years of inactivation. When a ship is scheduled for retirement, it should go through two phases.

- *Phase Alfa* calls for the ship to be completely overhauled. During recent years, ships have not received this treatment, but present plans call for almost all ships to be overhauled in the future before inactivation. The ship remains in full commission during this period.

- *Phase Bravo* begins when the ship reports to the Reserve Fleet to start deactivation. At this point, the

ship is considered In Commission In Reserve (ICIR).

Almost all the inactivation of a ship is done by the ship's crew. Here is a partial list of the work involved after a ship has been notified of her scheduled inactivation.

- All records and logs are brought up to date. Those that are to remain on board are stowed, and classified ones are removed and stored or destroyed.

- Arrangements are made for certain shipyard work. Those repairs required for the security of the ship or to prevent excessive deterioration must be done, as well as those repairs necessary for the operation of the ship until inactivation. If time and funds permit, repairs are also made to improve the efficiency of the ship.

- All perishables, searchlights and running gear are removed.

- All areas are inspected and made watertight.

- Pipes are drained and cleaned; exterior surfaces are painted where needed; hatches and doors exposed to the weather are closed, and worn gaskets are replaced. Those openings not needed for normal access are sealed.

- Dehumidification equipment is installed to prevent excessive rusting and corrosion of interior surfaces. Guns and other exterior equipment secured to the deck are covered with an aluminum dome. A hole is drilled through the deck under this dome so the D/H equipment can also preserve this equipment.

Dehumidification is accomplished in this way:

First the hull is sealed into a protective envelope. The fire mains are opened into each compartment to form avenues of circulation between the compartments. When the dehumidification equipment is operating there is a complete cycle of dry air throughout the ship. In some areas where this air cannot be circulated, silica-gel is used to remove excessive moisture.

In every area of the ship, equipment is removed, preserved or stowed, and records are brought up to date. When all the required work is completed, the commanding officer takes down the commissioning pennant and officially turns the ship over to the Reserve Fleet Commander. The ship is then Out of Commission In Reserve (OCIR), and the responsibility of the Reserve Fleet.

There are several things that can

happen to ships in Reserve.

The main purpose of a Reserve Fleet, of course, is to have ships ready for reactivation in case of emergency. Then, if they are not needed, they are ultimately scrapped.

Some swapping is done with the active Fleet. If a ship that is currently active needs extensive repairs, it may be less expensive and faster to reactivate a ship in the Reserve Fleet. Stores and equipment are simply exchanged and the reactivated ship is again underway.

Some ships from the Reserve Fleet are given to non-profit organizations to be used as memorials. Before a ship is scrapped, organizations may request that it be turned over to them. The Navy investigates these groups and if they are financially able to maintain the ship, they may get it—free. The Navy doesn't sell the ships to these organizations.

Friendly foreign countries get some ships under the Military Assistance Program. These transfers are made on the assumption that it is better to have combatant ships afloat, operating and ready for use on our side in case of war, than wasting away in a Reserve Fleet unit.

SINCE THE END of World War II, 518 ships have been sold or loaned to friendly foreign countries. They include 60 warships (CVL, CA, CL, DD, SS); 137 amphibious (LST, LSM, APD); 26 auxiliary (AOC, ARL, ARB, ATA, ATF); 112 patrol (DE, PC, PCE); and 183 minecraft (MSF, MSCC).

What about those ships scheduled for scrapping? Before a ship is sold for scrap, the Naval History section of CNO removes all plaques, insignia, the ship's bell and wheel, and other symbols of the ship. It also saves souvenirs. It might, for example, remove several planks from the deck of an old ship. These planks would then be cut into small pieces and given to men who request a souvenir of the ship.

After a ship has been stripped of its historical material, it is ready to be sold for scrap. Here again there are certain restrictions. All major ships, for example, must be scrapped in the United States. This insures that the ship cannot fall into the hands of an unfriendly country or that a gallant war veteran be reduced to some ignominious service.

SINCE THE MODERN Reserve Fleet was started soon after World

War I, it has proved its worth several times. The most recent examples were the Korean Conflict in 1950 and the period following the Suez crisis in 1957.

Just before the start of the Korean fighting the Reserve Fleet was packed with 2258 ships. By December 1951, about one-and-half years later, over 550 ships had been activated for use during the national emergency.

Following the Suez crisis, and at the time of the Lebanon incident, many merchant-type ships and auxiliaries were reactivated—a large number from the National Defense Reserve Fleet.

An even earlier gap filled by ships from the Reserve Fleet, and the one that initially proved the worth of this group of ships, was the 50 destroyers which were transferred to Great Britain during the early stages of World War II. Until that time, few persons, either civilian or naval authorities, recognized the real importance of a Reserve Fleet.

There was one man in our history, however, who recognized the need for a Reserve Fleet over 100 years before we actually started one. He was President Thomas Jefferson. In 1802 he wrote to a Philadelphia architect, Benjamin Latrobe, and asked him to design a drydock for U.S. Navy frigates.

Latrobe's plan, which would have cost \$417,276, called for ships to be laid up in a building drydock. The ships would have been floated into the spaces by locks, and then set on wooden blocks until needed. The plan was submitted to congress, but was later dropped.

Today the Reserve Fleet is an important counterpart of the active



WRAPPED UP—Crane lifts cover for gun mount aboard USS *Baltimore* as the cruiser is prepared for a rest.

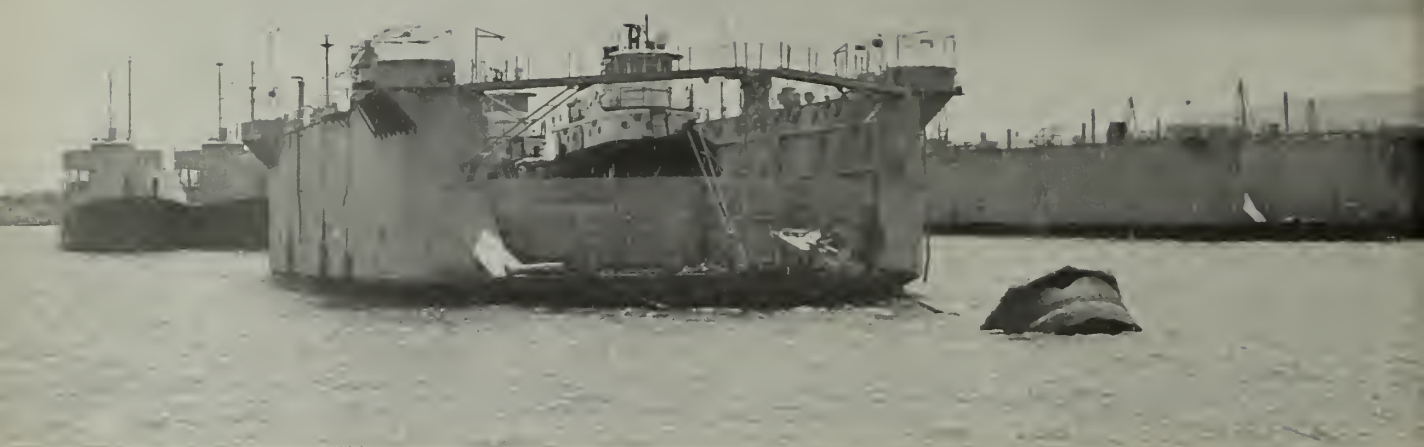
Fleet. It will remain important so long as the ships in it can be used in the Active Fleet in case of war. Ships that are too old or too deteriorated are of no use to the Active Fleet, and thus are of no use in the Reserve Fleet.

That's the reason for the "purification" program, or weeding out process. The ships that remain should form a nucleus of good ships in a state of readiness.

—Erwin A. Sharp, JOC, USN.

TIME OF NEED—Many ships of the Reserve Fleet came to life during the Korean conflict. Here, Navymen take wraps off carrier USS *Princeton* (CVA 37).





Pickled Drydocks

THE WORLD'S LARGEST floating drydock is not in use today, but it will be available if it is ever needed. It is one of many similar type vessels berthed at the Inactive Service Craft Facility at Middle Loch in Pearl Harbor.

Established in 1947, ISCF was first primarily concerned with the maintenance and care of inactive docks. Later, in 1955, other types of service craft were added to the Reserve group.

Basically, the Facility maintains floating drydocks and service craft in a Reserve status.

The Reserve Fleet at Pearl Harbor is an outstanding example of constant maintenance. All inactive ships and craft, related equipment and records are kept in a state of preservation and readiness.

Most of the ships anchored and

moored at Middle Loch date from World War II. Many were reactivated to serve during the Korean conflict.

The officer in charge is responsible for the readiness of over 100 Reserve ships and craft berthed in Middle Loch. He and his staff of approximately 200 wage a constant battle against the corrosive effect of salt water, weather and time.

Today, the types of ships attached to ISCF include:

- The AFDB, a non-propelled, self supporting drydock composed of seven sections for cruisers and a 10 section dock which can accommodate the *Essex*-class aircraft carriers we have today.

The sections are joined together at the location where the dock will be based for use.

- The AFDL, a single section,

non-propelled dock large enough to handle craft smaller than a destroyer.

- The ARD, a single section, non-propelled, with a ship hull, the stern having a gate which is opened as the vessel is submerged to allow large submarines or smaller craft to come in over the stern for drydocking.

- The YFND, a covered lighter or barge equipped with shops and equipment for repair work that the floating dry-dock can not complete in her own shop. Sometimes it is equipped with living quarters if the floating dry-dock can not accommodate all the personnel assigned.

Other ships of the auxiliary and support class berthed at ISCF include yard cranes, yard oilers, water barges and various other types of vessels.

The activity maintains the records

STANDING BY — Biggest floating drydock rests in mothballs. Above: Navy men of ISCF work in smaller drydock.





SHIPSHAPE Navymen of Inactive Service Craft Facility at Pearl keep their Reserve-status craft ready for action.

of these ships, prepares shipyard work requests for repairs, and is responsible for inventory of equipment.

These vessels are sealed and a dehumidification system, which prevents moisture from collecting inside the hull, is installed when possible to keep corrosive elements from collecting on interior metal surfaces. Containers of humidity-absorbing silica-gel are placed in sealed compartments if de-humidifying equipment cannot be installed. The containers are inspected periodically, and are replaced if they have become too saturated.

Exterior surfaces of the vessel are protected by constant chipping, painting and scraping in areas where rust is prevalent. Underwater surfaces are given a going-over during periodic drydock maintenance at the Pearl Harbor Naval Shipyard.

Six divisions are responsible for preserving and maintenance of the

craft in Middle Loch.

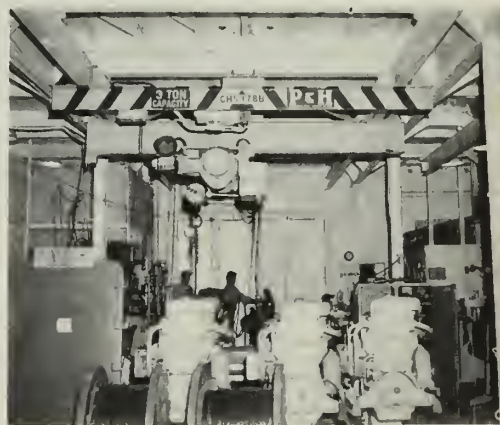
The First Division is responsible for preserving deck and gunnery parts of the ship. Their primary concern is preservation of exterior surfaces.

An Electrical Division is responsible for the maintenance of the dehumidification equipment. It is also responsible for overhauling and repairing all electrical and electronic equipment at ISCF.

The "R"—or Repair—Division is responsible for fire protection and safety at the activity. It also sprays a protective coat of plastic seal on the ship's machinery.

The men in "A" Division maintain the operation of all the activity's pumps, diesels, compressors and refrigeration equipment. They also handle all the transportation.

The I & R Division is split in two teams. The inventory team is responsible for the inventories on all machinery on the ships. The RIAL



(Reserve Inactive Allowance List) team lists all equipment and machinery on board ISCF units.

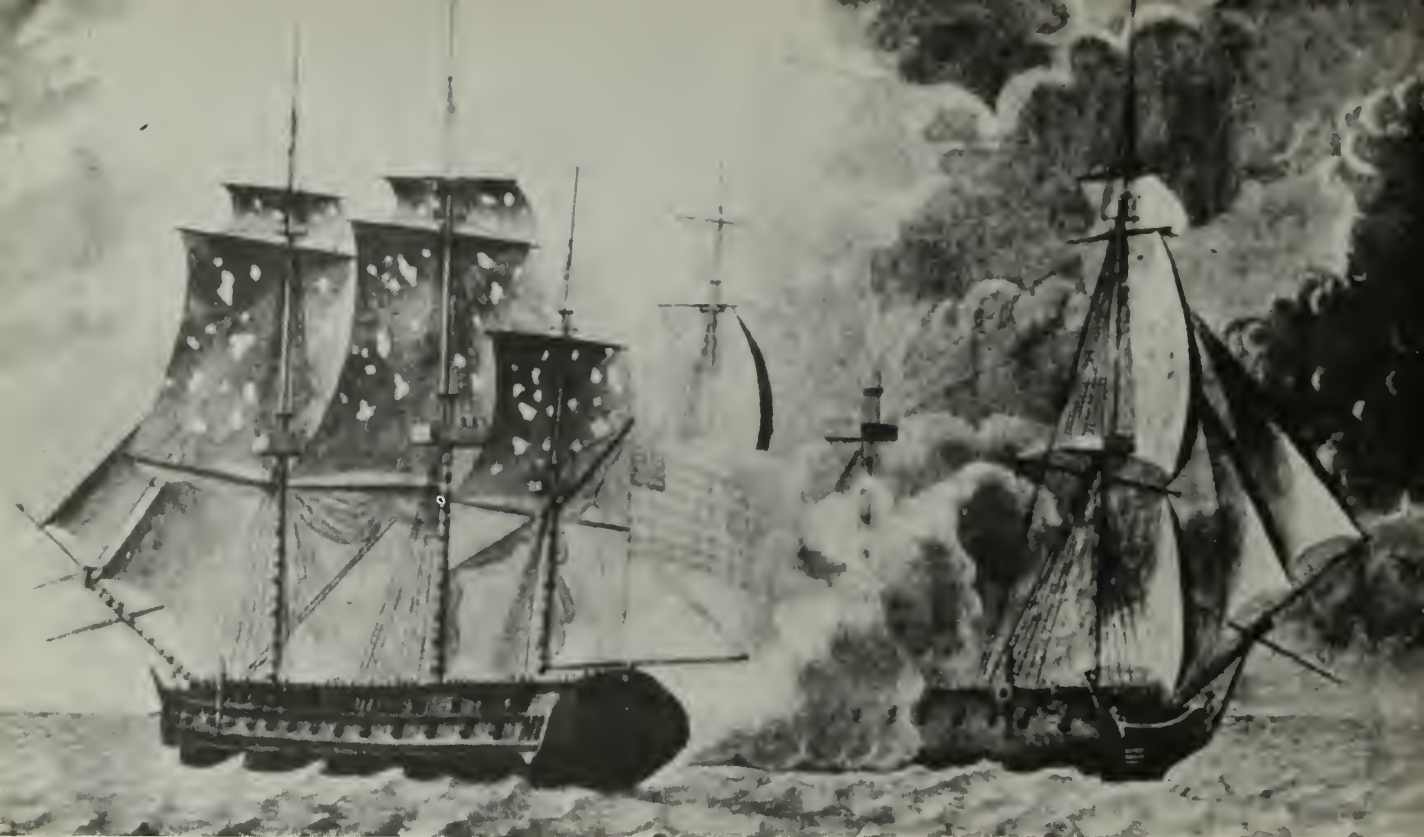
The O & I Division is responsible for security of inactive craft undergoing shipyard overhaul and inspecting final shipyard job orders.

They're all ready—in Reserve.

—Dick Haraldson, SN, USN.

FLOATING DRYDOCKS in Reserve at Pearl need constant care. Above: Engines are worked on in ISCF shop.





Constellation Stars Again

MODERN BALTIMORE—a very big and very busy port—doesn't look much like the old Maryland city that witnessed the launching of the United States Frigate *Constellation* back in 1797. But some reminders of sailing ship days are still around.

For instance, there are streets along the waterfront today where the air still holds the siren fragrance of spices from exotic lands—a scent that has stirred the wanderlust of men for thousands of years. There are some shipyards where you can still hear the thump of calking mallets and notice the smells of oak and pitch and pine that were common when *Constellation* was being built. And, if you know where to look, you can also find proud old *Constellation* herself—being repaired in one of those yards, alongside the ordinary boats and barges that are the main wooden vessels still around nowadays.

Today, the old "Yankee Race Horse" ain't what she used to be. Her paint—a quarter of an inch thick in spots—is peeling. Many of her planks are rotten. Her guns and masts have been taken away from her. A shed-like structure on her weather deck makes her look a bit like Noah's ark.

And below decks, plywood bulkheads, thrown up when *Constellation* was the World War II flagship of the Atlantic Fleet, contrast harshly with the older parts of the ship.

Despite *Constellation's* present sad state, she is far from the end of the trail. In fact, she now has a chance to regain much of her long lost

youth—thanks to the fund-raising effort of the *Constellation* Committee, and to the way Navymen and civilians are lending a hand in those efforts. If the committee can raise enough money within the next few months, the restoration of the famous warship can probably be completed by the end of this year. If not, the work may drag on for at least two or three more years.

FIRST SKIPPER CAPT Thomas Truxtun, took frigate to sea in June 1798.



According to the committee, which is dedicated to *Constellation's* preservation and restoration, this ship is "the oldest vessel in the world still afloat." Designed by Naval Constructor Joshua Humphreys, she was built at the shipyard of Samuel and Joseph Sterrett in Baltimore, under the supervision of CAPT Thomas Truxtun (who was to be her first skipper) and Naval Constructor David Stodder. She was planned for 36 guns, but generally carried 38.

Her keel was laid in 1795, which was before we even had a Navy Department. Originally she was one of six warships Congress provided for as a means of protecting American commerce from the depredations of the Barbary pirates. (Others in the group were the frigates *United States*, *Constitution*, *President*, *Con-*

gress and *Chesapeake*.) Work on the six was suspended when a treaty of peace with Algiers was ratified in November 1795, but an Act of Congress approved 20 Apr 1796 authorized resumption of the work on *United States*, *Constitution* and *Constellation*. The latter was launched on 7 Sep 1797 — a little more than a month before *Constitution*, which is also still afloat.

In 1798, because of the naval war with France, *Constellation's* fitting out was stepped up to get her ready for sea. Under CAPT Truxtun's command, she first put to sea in June 1798. Her first big fight took place on 9 Feb 1799 off Basseterre, in the West Indies, where she captured the 40-gun French frigate *Insurgente* after an action which lasted a little over an hour. She also fought a memorable duel with the 52-gun frigate *Vengeance*, which hauled down her flag two or three times during the battle without her signal of surrender being seen aboard the American ship.

During the early 1800s, *Constellation* took part in a number of operations against the Barbary corsairs. In the War of 1812, although she was blockaded in Chesapeake Bay, she still did quite well in several brushes with British forces around Norfolk, Va. After that, she ranged over most of the world to carry out a wide assortment of duties during the next several decades—South America, the West Indies, the

Mediterranean, the East Indies, China, Hawaii — wherever there was anything doing. For example, in Hawaii in 1843, her presence helped keep the islands from being ceded to Great Britain.

In 1845 *Constellation* was laid up in ordinary at Norfolk, Va., where she remained until 1853. The following year, she was taken to the Navy Yard and converted into a 22-gun sloop of war. Ready for sea again in 1855, she continued to lead an active and useful life for most of the next 100 years. For instance:

- Between 1859 and '61 she captured several slave ships off Africa.

- During the Civil War she helped protect Union commerce from Confederate raiders in the Mediterranean and eastern Atlantic.

- In the 1870s and '80s she made repeated midshipman training cruises, carried cargo for the Paris Exhibition of 1878 and transported relief supplies to Ireland in 1880, during the famine there.

- In September 1892 she sailed for Europe, to collect works of art for display at the Columbian Exposition, returning to the United States with them in February 1893.

- From 1894 to 1914 she served as receiving and stationary training ship at Newport, R. I. That assignment was interrupted in June 1914, when she was towed to Norfolk, to be stripped of all modern gear and returned to her original appearance as nearly as possible. That done, she



OLD TIMERS turn to in the rigging of tall-masted old USF *Constellation*.

visited Baltimore and Washington, D. C., before returning to Newport in 1915 to resume her duties as training ship. Except for a special trip to Philadelphia in 1926, during the Sesquicentennial Exposition there, she continued to serve in her

HERE'S HOW Frigate *Constellation* looked back in 1881 at U.S. Naval Academy. Aim is to keep her that way.





ANOTHER VICTORY—USF *Constellation* under the command of CAPT Truxtun is shown in drawing in a famous duel with 52-gun French frigate *Vengeance*.

training ship billet until 1940.

- On 24 Aug 1940, *Constellation* was placed in full commission as Flagship of the Atlantic Fleet. During the next two and a half years she served at various times in that capacity and as flagship of Com-

mander, Battleship Division Five, Atlantic Fleet.

Following World War II *Constellation* went into a decline (although she was officially in commission until after the Korean conflict). She wasn't decommissioned until

NOT WHAT SHE USED TO BE—Today the 'Yankee Race Horse' has lost much of her beauty. However, the *Constellation* Committee is working to restore her.



1955, when she was stricken from the Navy's lists and presented to the city of Baltimore and the state of Maryland as a gift. Since then, the *Constellation* Committee has been doing its best not only to keep her alive, but also to help her recapture her lost youth.

The committee has, as its national chairman, Fleet Admiral Chester W. Nimitz, who received part of his early naval training on board *Constellation* as a midshipman. The group's vice national chairman is Admiral Arleigh A. Burke. Also serving on the committee are naval historians and prominent Baltimoreans.

In addition a couple of Navymen are doing their bit to tell the Navy and the world about *Constellation*. These two super salesmen are Lieutenant Commander Vincenzo Lopresti, usn, Officer in Charge of the Navy Recruiting Station in Baltimore, and C. A. Malin, PNC, usn, his right-hand man. Neither of them is a PIO by trade, but both have told *Constellation's* story so well and so often that they've gotten publicity for her through practically every medium of communication from network TV to jungle drums and smoke signals.

LCDR Lopresti has had previous contact with the old girl. He's known her since 1936, when he received marlinespike seamanship drills on board while he was in boot camp at Newport.

Most of the efforts of the Lopresti-Malin team are aimed at boosting the sale of *Constellation* souvenir medals, 200,000 of which have been made so far out of copper spikes removed from the old ship during her restoration. The medals, about the size of a fifty-cent-piece, can be obtained at the rate of one for each dollar paid to *Constellation's* cause. Besides being handsome souvenirs (or lucky pieces if you prefer) the medals serve as lifetime passes for their owners to visit *Constellation* without charge when she goes on display, and they make it possible for anyone actually to own a small part of this famous ship.

The *Constellation* Committee has launched a three-pronged sales campaign to get word to the Navy about the sale of the medals. Navymen on active duty have been informed of the project via a SecNav Notice issued last summer and through letters sent out to the commanders of all ships and stations along with

consignments of the medals. Retired Navymen and members of the Fleet Reserve got the word through notices mailed to them, and Reserves are hearing about the drive through announcements via their drill units.

The Navy's response to this campaign has been enthusiastic. LCDR Lopresti and Chief Malin sometimes work until the wee hours of the morning to fill all the orders that pour in to "Constellation, Baltimore, Md." — the mailing address for the drive.

One old-timer, now living in the Far East, enclosed this note with a well-worn one-dollar bill he sent in for a medal:

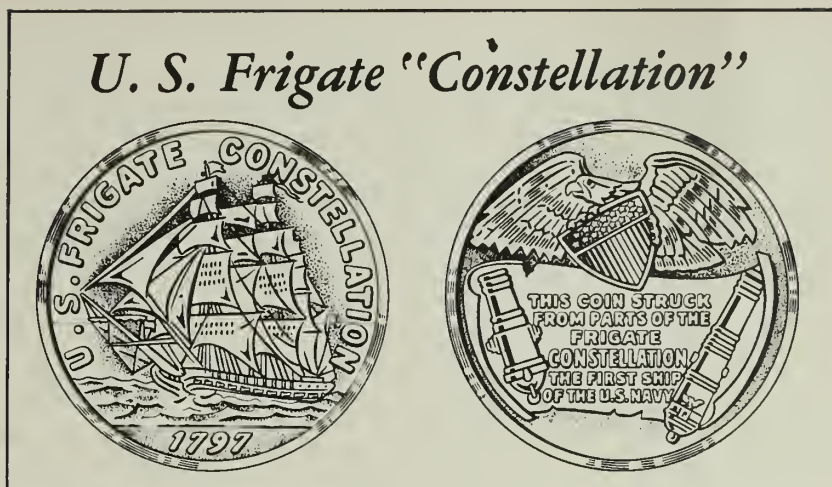
"Sir:

I would gladly give more, but it is hard for me to find dollars in this part of the world. I have kept my last one, and am enclosing it. This one-dollar bill was with me for 10 years."

By return mail, the writer of that letter received not only a *Constellation* medal, but also a brand new dollar bill. Within two weeks the *Constellation* Committee heard from him again — this time with a check for three dollars and a letter ordering two more medals.

Quite a few retired Navymen have sent notes and letters like these to the ship:

- "The card about *Constellation*, which I received in the mail brought back recollections of 1903. When I was a nine-dollar-a-month apprentice boy at Newport, R. I., I helped replace all the old running rigging on *Constellation*."



SOUVENIR MEDALS are struck from copper spikes used in first construction.

- "The mention of *Constellation* reminds me of those turn-of-the-century days when I received my first seamanship training on board. 'Lay aloft!' — 'Loose and furl!' — those were the happy days.

"We old-timers appreciate the work being done to save this wonderful old ship for posterity. While serving on board *uss Topeka*, a bark-rigged sailing ship, I was around when the old guardo (receiving ship) *Wabash* was sold to a junk dealer, and I watched with shame when she was towed over to the mud flats in South Boston and burned down for the copper spikes in her.

"We are all happy that *Constellation* didn't pass out the same way."

- "I was one of the lucky sailors (an apprentice seaman at the time) chosen to make up a crew of 32

which took *Constellation* from Newport to Philadelphia in 1926. Most of this crew stayed intact and brought the ship back to Newport after spending six months on board during the Sesquicentennial Exposition.

"I am mighty proud to say I was one of *Constellation's* crew at that time, when thousands of people visited the ship. All of them appeared to be favorably impressed with her."

One note that arrived pretty well summed up the whole Navy's attitude toward saving *Constellation*. It said:

"Many thanks for the privilege of getting a chance to help. If you should run short of the amount you need to put her in seafaring condition, let us know. We'll come across again."

—Jerry Wolff

GOOD OLD DAYS—Photos show how gun deck (left) and spar deck (right) looked when frigate was in good shape.





DOUBLE DUTY—Assignment to a Navy ship could bring collateral PIO duties.

FEW SHIPS IN THE NAVY are large enough to warrant a billet for a full-time Public Information Officer. So every year hundreds of more or less unsuspecting individuals find themselves holding part-time jobs as the "news agents" of their ships.

In the modern Navy, it would be nice if every collateral-duty PIO had experience in newspaper work, writing, public relations or advertising. The hard fact, however, is that most ships will have to get along without people who've had that sort of experience, since the PIO is often a

newcomer to public information work. If you're in this category, the information on these pages may help to ease your lot.

Actually, the lack of experience is not so big a handicap as it might seem at first glance, for the attitude and common sense of a part-time PIO can go a long way toward overcoming the obstacle of inexperience.

One of the most important qualities a good PIO should have is enthusiasm about the Navy, his job and his ship. Without that, he's like a salesman who isn't sincere about his



AWARDS are of interest back home.

On the

product—he'll probably have a tough time selling it.

Another valuable asset is above-average intelligence, for there are times when a great deal may depend on the PIO's ability to think fast and make sound judgments. An even temperament is also good to have, so the PIO won't get rattled by the rush and pressure of his work should the ship become involved in something big, or should some of his plans go wrong. And, initiative—the kind it takes to make public relations a fire-prevention, not a fire-fighting operation—is important too.

As to personality, the PIO should be the sort of person who enjoys dealing with people, and who is able to mix with all kinds of them. This doesn't mean he has to be the back-slapping, "Hi there, Charlie, old buddy" type. Usually, a quiet, reserved person is better liked, and often the more efficient public relations man.

Although a part-time PIO doesn't have to know everything about public relations or the Navy, he should have a good working knowledge of his ship and the Navy, and he should be familiar with the missions and techniques of the Navy public information program. Briefly, the chief

GOOD COPY—Recreational events interest the community as well as Navy.





GET THE PICTURE—Good photos of Navymen returning home and visiting faraway places usually make the papers.

Go with a Part-time PIO

mission of that program is to keep the general public and the people in the Navy informed of:

- The Navy's role as an instrument of national policy and security.
- The activities of the Navy, so far as they can be publicized within the bounds of military security.
- The responsibilities and functions of the Navymen as a United States citizen.

The shipboard PIO deals mainly with information for and about the Navymen aboard his ship, since his time for public information activity is usually limited, and since his means of reaching the general public are restricted. He is concerned with making sure the men in the ship understand the part they play on the national defense team, and with getting them to communicate the Navy story to their families and friends. Along the same lines, an even more important part of his activity is seeing that the Fleet Home Town News Center is supplied with stories about the men in the ship, so the stories can be distributed to the home-town newspapers of the men involved.

Every ship is a constant source of news and feature stories that would be of wide interest both in and out of the Navy. Unfortunately, the col-

lateral duty PIO doesn't always have time to go looking for them, but he should train himself to watch for good Navy stories within his command, and he should know how to exploit such stories when he finds them.

If the PIO has the ability to do that, he can turn even the most minor event into something newsworthy. For instance, during a cruise from the West Coast to Pearl Harbor, a Navyman was transferred by highline from a destroyer to a cruiser for an emergency appendectomy. The transfer operation, showing the stretcher in mid-air on the highline was photographed, and an alert PIO had the picture rushed by hand to the city editor of a Honolulu newspaper. The picture appeared on the front page in competition with beauty queens and Aloha Week.

Another good example of the smart exploitation of a story involved *uss Mount McKinley* (AGC 7). A local newspaper in San Diego, Calif., had run a story to the effect that the good old sea traditions were on the way out. At this time, *Mount McKinley*, as part of a continuing effort to emphasize tradition, had revived the boatswain's chorus. A picture was taken of four boatswain's mates

calling away the first watch, and the picture and a story were given to the paper that had run the item on dying traditions. The material was published as a Sunday feature, and that publicity led to an appearance by the chorus on a well-known television program. At the same time *ALL HANDS* used the photo of the chorus as a cover picture.

The big events nearly always exploit themselves. The little, almost routine happenings are the ones that require conscientious development.

What can be done with the transfer of a sick or injured Navyman has already been shown. Among other events which can be exploited are the awarding of medals, commendatory masts, reenlistments, homecomings from forward areas, athletic events, advancements in rate, visits of foreign officials, ships' anniversaries and visits to places of interest. Naturally, no matter how good a PIO is, he's not going to hit front pages all over the country with stories on such subjects as these. But, if he's alert, he can still get pretty good mileage out of them.

Take an athletic event (and again the publicity-smart *Mount McKinley*) for example:

Of greatest news interest is a con-



NATURALLY visits by movie stars and VIPs make news. Fleet Home Town News Center will pass the word about crew.

test with an international flavor—such as an Anglo-American Field Day conducted between USS *Mount McKinley* and British forces (including a British base and the Australian ships present) at Kure, Japan. The whole program was engineered as a means of promoting international good fellowship. Action photos were taken of all events, and press releases and pictures were given the widest possible distribution. As a result, stories appeared in a British newspaper published in Japan, in *ALL HANDS* Magazine and in the newspaper of the Amphibious Force, Pacific Fleet. In addition, the event was broadcast over the British Armed Forces Radio in Japan.

For another example, take visits to places of interest:

Whenever a ship visits a foreign port, a large-scale attempt should be made to procure good photos of men on liberty there amidst interest-

ing surroundings. A standardized story, in which only name, rank, home town address and name of parents need be changed, can be worked up for distribution through the Fleet Home Town News Center along with the photos. The fact that Seaman Johnny Jones, son of Mr. and Mrs. William Jones of Centerville, is visiting the Hanging Gardens of Slobovia may not be the biggest news in the world, but there's a good chance it will be news to the readers of the "Centerville Clarion and Bugle."

Besides the more routine affairs, there are all sorts of special projects—ranging from charity drives to Presidential Reviews—to help keep the PIO busy. And, when he runs out of these things, he can exercise his initiative and originality by digging up his own material. For instance, there are stories to be found in chow lines, the anchor, navigation, the signal bridge or just about anything else aboard ship that a clever PIO puts his mind to.

Even the best idea in the world can fall flat if a story or picture is poorly done, or if the PIO isn't familiar with the mechanics of getting an item distributed to its most likely user.

One of the major troubles with pictures is the failure of the cameraman to catch atmosphere. Instead, he merely gets a picture of something without representing the spirit of the occasion. For instance, say a ship is arriving home after nine months in the Med. The atmosphere is full of the excitement of Navy-men's reunions with their families. However, the pictures show the end of the pier with a blurred crowd overshadowed by a gawky crane—

no atmosphere—no story—no good.

Another trouble is failure to relate the picture to the ship and the Navy. After all, where is the Navy angle in a picture of costumed Japanese dancing girls welcoming a ship to Yokosuka, if neither the ship nor Navy-men are visible in the photo?

Sometimes, valuable shots are missed because only one photographer is assigned to cover an event, so two cameramen should be on hand whenever possible. And, of course, they should have an adequate supply of flash bulbs and film. Incidentally, it's a good idea for the PIO to keep in close touch with the ship's camera club, and to know what's cooking in the way of sight-seeing tours and such, so he can take advantage of any pictures suitable for release.

One photographic point to be especially careful of is the matter of re-posing what should be an action picture or—what amounts to the same thing—holding an action pose while the camera is adjusted. Nothing dies quicker than a spontaneous smile. To "hold it" chilled in place makes a frozen picture. A handshake—which isn't the most original shot in the world anyway—becomes even more deadly if it has to be held for five minutes while the photographer fiddles with his camera.

Equally deadly is the posed hands-across-the-sea picture showing two persons shaking hands at an unnaturally extended distance, with much wasted space between them. Move your two principals closer together and strive for more facial expressions. Remember that editors won't use pictures that require a large width unless they're exceptionally good. Don't have too many peo-

INSIDE JOB—PIO should keep ship well informed by using newsletters, bulletin boards, PA system, etc.





STORIES ON emergencies handled at sea and visits aboard ship keep the public informed on what the Navy is doing.

ple in the picture and be sure to identify fully all people in the photo.

Last but not least is the matter of speed in developing, printing and forwarding pictures. Often, a delay can mean the difference between having a photo wind up in an editor's wastebasket or on the printed page.

As for stories, when and how quickly they are written depends on their subject. The best advice on spot news is to get it written up and sent in yesterday. Articles about anniversaries, holidays and other events which can be planned for in advance, can be done well ahead of time and given a release date to correspond with the occasion. It is handy to know deadline dates. For example, feature articles for some Sunday newspapers must be in by Wednesday afternoon, and many monthly magazines—including ALL HANDS—like to work a couple of months in advance.

Frequently, the photograph of an event tells the whole story, but it still needs some sort of caption. The caption should be able to stand alone; that is, tell a complete, abbreviated story, concerning the accompanying photograph.

Accuracy is, of course, very important, for many an otherwise good story has been ruined by a seemingly unimportant error in fact.

You don't have to be a great writer to turn out an acceptable news or feature story. Just keep your sentences short and easy to read, put your emphasis on the most unusual or interesting aspect of the story and don't try to get fancy.

There are many outlets for the material you produce. The Fleet Home Town News Center, located at the U. S. Naval Training Center,

Great Lakes, Ill., handles thousands of releases a year from ships and stations all over the world. Details on submitting material to Fleet Home Town News Center can be found in the *Public Information Manual*.

Good "markets" for your material are the following: ALL HANDS, "house organs" of various type commands (DESLANT's "Destroyerman" for instance), ALL HANDS, civilian newspapers in your ship's home port, ALL HANDS, and assorted naval and military publications.

Press releases and photographs for consumption outside the Navy are not the PIO's only concern. It's also important—especially from a morale standpoint—for the men in the ship and their families to be well-informed. Among the means for keeping the ship informed are the Plan of the Day, PIO and Special Services bulletin boards, daily mimeographed news sheets, newscasts over the PA system and, of course, the old tried and true method of passing the word at quarters for muster. For keeping the men's families in touch with the ship and the Navy, there are such devices as weekly newsletters from the ship's skipper, family visits to the ship, wives' clubs and special letters from the skipper to the families of men who have been commended or advanced.

Community relations are important too, for the identification of a ship and its families with the local community is the essence of good public relations so far as an individual ship is concerned. Visits to the ship by school children, orphans, Sea Scouts, civic groups and such—in both American and foreign ports

—are ways to help establish friendly relations with a community.

To help make these visits more pleasant, bilingual signs and interpreters are a couple of "little" touches to remember in foreign ports. In either foreign or American ports "Welcome on Board" pamphlets and pictures of the ship make a hit.

On newsworthy photos or pictures of national interest, negatives should be airmailed to the Naval Photographic Center as quickly as possible, sending CHINFO a set of prints (contacts will do) and a copy of the forwarding letter. Spot news with national appeal, especially human interest, should be sent to CHINFO by message, giving full names and home towns.

As you've probably gathered by now, the PIO can find plenty to keep himself busy.

He can also find plenty of satisfaction in his work—once he gets rid of the idea that his job as PIO is "just another collateral duty."

—Jerry Wolff.

NAVYMEN MAKE NEWS—Re-enlistment of crew members is played up in hometown and service papers.





GOING UP—USS *Edmonds* negotiates tricky currents at Bonneville Locks.

AND NOW, the U.S. Navy has sailed through the mountains of the far Northwest.

uss *Edmonds* (DE 406) has completed a cruise up the Columbia River from Vancouver, Wash., into the interior of Oregon and Washington to The Dalles, Ore.

There, established as the first Navy vessel to sail on the Upper

Columbia, *Edmonds* was given a royal welcome, participated in community programs, and held open house for 6900 guests.

The people loved it, and so did the sailors.

For the people of the upper Columbia in such towns as Hood River, Ore., Stevenson, Wash., and The Dalles, it was much like a combina-

tion of the Fourth of July, a picnic, and a homecoming game.

As *Edmonds* made the 90-mile cruise, people flocked to the river from miles around. They jammed every clear spot that afforded a view of the Columbia, from the water level to the tops of the high, sheer cliffs that line much of the route.

They waved and waved, anxious that the Navy be assured it was most welcome here where it had never sent a ship.

No warship had ever sailed to The Dalles, two mountain ranges east from the Pacific Ocean because only now, the 27-foot channel, necessary for an ocean-going vessel to negotiate the swift, treacherous currents, is being completed to The Dalles.

No other ship had sailed the same course until *Edmonds* made the voyage. One vessel did make the same trip in 1938, the small freighter ss *Charles L Wheeler Jr.*, but even the little 289-footer had trouble in the then 19-foot channel and bumped

Following

the rocks on occasion. She arrived considerably shaken up.

Even the weather was good. Although the Northwest had been having a period of heavy rain, *Edmonds* encountered only a shower or two.

As she followed the route downriver, sunshine illuminated the beautiful Columbia Gorge cliffs that channeled Lewis and Clark to the sea in October and November of 1805.

Edmonds departed Vancouver at 0600 with her regular crew and some 45 guests aboard. Towns along the river, city, county and state governments, schools, port districts, and other military services were all represented.

Edmonds' skipper, CDR M. C. Lee, was busy conning his ship with the aid of two river pilots and welcoming the guests aboard, but he took time to recognize the many towns along the banks of the Columbia with loud blasts of the ship's whistle.

When *Edmonds* reached Bonneville Dam at the approximate halfway point of the voyage, she passed through the dam locks.

This gave the citizens of Cascade Locks, Oregon and Stevenson, Wash.,

UP THE RIVER—*Edmonds* sails under 'Bridge of the Gods' at Cascade Locks.





the Trail of Lewis & Clark

a chance to get into the act. More than 500 persons lined the lock railings as the ship entered and was lifted to the dam pool level.

Many residents of The Dalles had driven to Bonneville to see the vessel and accompany it upriver, and as *Edmonds* made the rest of the cruise, the highways on both sides of the river were crawling with cars, maintaining the same pace as *Edmonds*, which traveled at 12 knots.

As the ship proceeded further into the Inland Empire small planes continuously flew overhead and boats were everywhere in the water, causing an occasional anxious moment when they would swerve in for a close look at the warship.

Warm welcomes were received from crews of tugs and barges, some of whom were startled to see *Edmonds* suddenly glide around a bend in the twisting Columbia.

The Dalles provided a welcome guaranteed to warm the heart of any sailor.

As *Edmonds* came alongside the pier, down the dock came smart-stepping majorettes leading a large delegation of marching Booster girls. Then came The Dalles High School Band, followed closely by pretty

Wasco County Cherry Sweetheart, Sharon Parman, and her court.

These units had headed a parade which also included units of the American Legion, Sea Scouts, Navy Mothers, and the National Guard, led by a police escort.

Miss Parman presented the skipper with a three-foot cherry pie which was accompanied by enough smaller pies to assure there would be plenty for the entire crew, and the

mayor presented the key to the city.

Speeches over, The Dalles welcomed the sailors ashore on liberty with open arms and a packed schedule of events.

Saturday the sailors played golf, a baseball game, and took the three tours of The Dalles Dam which the city had arranged for them.

Sunday, with another full load of civilian guests, *Edmonds* headed westward to her Portland berth.

BRIDGE HEAD—Streamer under Hood River Bridge marked completion of voyage across the Cascade Mountain Range into Oregon and Washington.



LETTERS TO THE EDITOR

Hat's Part of the Uniform

SIR: Someone stationed here was called down recently for not wearing his hat while in a privately owned vehicle in a naval residential area. He (and I) would like to know the regulations on this subject.

I'd also like to point out that in some of the small foreign cars nowadays there is hardly enough room for a hat.—M. H. B., YN1, USN.

• *There are no regulations that cover this question specifically. However, wearing the hat is considered part of being in uniform, except in places where being uncovered is recognized by custom as more appropriate—for example, in quarters, offices, theaters and such.*

Although there are no regulations on the matter, it is considered appropriate for those in uniform to wear their hats while traveling in automobiles.

We're told that this sometimes means a close squeeze in a small car, but we think it can be done—if you use your head.—Ed.

Underway Time

SIR: We agree that the record of *uss Outpost* (AGR 10), as noted on page 41 of your January 1960 issue, is a fine one. However, we of *uss Locator* (AGR 6) are a trifle envious. We're wondering how *Outpost* managed to spend 40.56 per cent of her time in port.

Locator was underway 5796 hours and 26 minutes during fiscal 1959, for an underway percentage of 66.16. In calendar year 1959 *Locator* was underway (only) 5520 hours and 20 minutes, for an underway percentage of 63.01.

The lower underway percentage for the calendar year was a result of the one time in four years that *Locator* failed to make her sailing date. During a normal in-port period of 11 days in September 1959 *Locator* was scheduled for an alteration to her main engine, the same "Up and downer" that powers *Outpost*. Due to manpower problems she had to shift to a second shipyard, with a consequent loss of 10 days. *Locator* finally sailed on 24 September, 15 days late. This did not, however, mean a short patrol—the schedule was changed accordingly, *Locator* exchanging schedules with one of her west coast sister ships.

We are proud of our ship, and of our underway time. To anyone who thinks that six months operating in the vicinity of excellent liberty ports in the Mediterranean and Western Pacific is rugged duty, we can only say—

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

"Wanta swap?"—K.W.J., LCDR, USN.

• *We'll pass your offer on to the rest of the Fleet.—Ed.*

Four No Trumps

SIR: Some months back (See page 29, ALL HANDS, April 1960) I suggested that CAPT Herbert S. Babbitt, USN, (Ret), could make a valuable first-hand contribution to the material you have already published about *uss Scorpion*, since he commanded that ship while it was at Constantinople in World War I.

I see by the June issue that he has shed some light on the subject, but I notice he omits mention of the card game he played to keep his crew from being sent to an internment camp.

On a recent trip to my old home in New York State I found some yellowed clippings which describe this incident.

At the time the game took place, the United States was at war with Germany, but not with Germany's ally, Turkey. The Germans asked the Sultan of Turkey to seize *Scorpion* and intern

Pro Pay and Procedure

SIR: Seniority among enlisted men is continually misunderstood. The fact that a CPO in one rating is senior for military matters to a CPO in another, regardless of time in rate, is a continual sore spot among some enlisted men.

Now there comes another problem area—pro-pay. Does pro-pay have any bearing on seniority? All the instructions I have seen give only a general answer or none at all. What's the scoop?—T. B., YN3, USN.

—• *Pro-pay has no bearing at all on military precedence. "BuPers Manual." Article C-2103, paragraph 4C, says "Proficiency pay status shall not influence enlisted precedence." A YN3, for example, with two years in rate, is still senior to a YN3(P-1) with one year in rate.*

A complete listing of all ratings according to military precedence is listed in Article C-2103, BuPers Manual.—Ed.

her crew. Talaat Bey, the Turkish grand vizier (chief officer of state), came aboard with the seizure order in his pocket. Babbitt was a friend of the Turkish official and had played cards with him at the Constantinople Club. He suggested a bridge game, and proposed, further, a play for the seizure order against the ship. Talaat agreed, and the cards were dealt.

Scorpion's skipper bid and made four no trump.

Talaat pocketed the seizure order. Thus, the crew was saved from internment.—LCDR Franklin G. Babbitt, USN.

• *Thanks for the postscript. Wonder who else played in the game—or was it two-handed bridge?—Ed.*

How to Improve Your Figure

SIR: You stated in your article "Big Killing" (November 1959) that enlisted men were involved in three times as many accidents as officers. Is this percentage-wise or actual count? If it is actual count, I think the EM deserves more credit than he's given in your article.—T.J.M., PH1, USN.

• *The figures we used were taken from BuPers Notice 5101 of 3 Aug 1959, which quoted motor vehicle accident statistics for 1958.*

These figures were based on the numbers of men involved in accidents per 100,000. Here are the figures again, and unfortunately, we can't give the EMs any better credit:

Admission rate per 100,000	Death rate per 100,000
Officers 239.3	19.5
Enlisted 788.9	68.0

The figures speak for themselves. Here's one set of statistics that we can beat, however—if we use sense in driving.—Ed.

Studying for Advancement

SIR: Would you interpret Article C-7201 of the *BuPers Manual* for me? Can an enlisted man complete a Navy Training Course for other than the next higher rate, or must he wait, say, until he makes PO2 before he can take the NTC for PO1?—D.A.F., PN3, USN.

• *It's necessary to wait until you are PN2 before you can complete the NTC for PN1. The article you cite says: "At any time subsequent to advancement to the current rate a person may commence study and complete the training course for the next higher rate." The Navy works on the principle that a man should become thoroughly proficient in his rate; the best way to do this is to study one rate at a time. Therefore, a*

man is not authorized to start or complete the training course for first class until he has advanced to second.—ED.

Postal Clerk Rating

SIR: I was a Chief Mailman from May 1945 until that rating was absorbed by the Teleman rating in 1948. Even then, I held the mail job code under the TE rating and have worked in Navy post offices and mail rooms for some 18 years.



Now that the Postal Clerk rate is back, are those of us who previously held the

mailman rate going to be changed to the Postal Clerk rate automatically or will we have to submit a request to the Bureau of Naval Personnel?

Also, will the new Postal Clerk rating badge have the same insignia as the old Mailman rate?—R.H.S., TE(YN)C, USN.

• No one will be automatically changed to the new PC rating. Anyone may apply who is interested and meets the qualifications as published in a BuPers Inst. 1440.26.

A selection board is expected to convene in the near future to select men for the new rating. Probably those selected will be administratively changed in equal pay grade to the new rating without being required to take a Navy-wide examination.

The rating badge insignia will consist of a postal cancellation stamp, similar to the old Mailman insignia.—ED.

But Not Shocking Pink

SIR: In 1942 I was in USS Jouett (DD 396) for duty. We were operating in the South Atlantic with USS Moffet (DD 362), Davis (DD 395), Marblehead (CL 12), Omaha (CL 4) and Cincinnati (CL 6).

Jouett and Davis were painted "pink." Please inform the "Boats" on USS Stribling (DD 867). He doesn't believe this one.—N.C., SD1, USN.

• Sorry we can't give you some really crushing proof to back your statement, but we did manage to find some evidence you might be able to use.

We referred your query to the Bureau of Ships, and people there recalled having seen ships painted a "darkish pink" color at about the time you mention. However, BuShips was not directly involved in the application of pink paint.

BuShips' records indicate that some U.S. naval units operating with British Blockading Forces were painted a color known as Mountbatten Pink—which was actually a pinkish gray.

Knowing our readers as we do, we've got a hunch one of them will probably let us know more about those pink ships.

We'll pass the word on.—ED.

Early Design of Navy Uniform

SIR: I am on recruiting duty, and was recently asked the following question: "On the enlisted man's uniform, other than Chief Petty Officers, what do the neckerchief, white stripes on the collar and two white stars on the collar represent or stand for?"

In digging around for an answer I came across the following passage in "Army and Navy Uniforms and Insignia," written by a Colonel Dion Williams: "The black neckerchief worn alike by British and U.S. sailors was made black after Trafalgar as an emblem of mourning for the great Nelson, and the three white stripes around the edge of the collar were so placed to commemorate Nelson's three greatest victories—Copenhagen, The Nile, and Trafalgar."

However, no mention was made of the two white stars, or their origin and significance.—R. W. W., YN1, USN.

• We don't want to confuse you, nor, necessarily, start an argument, but according to information available to ALL HANDS, the tradition that credits the black neckerchief with being a badge of mourning for Lord Nelson is a misconception.

The origin, as we get it, is that back in the early days of navies, it was a custom of all seagoing men to wear their hair in a braided pigtail. To make this pigtail stiff, it was customary to coat it thoroughly with grease. Since this grease would come off on the back of the collar of their coats, the men wore bandanas of all sorts, hues and colors, including black. In later years pigtailed went out of style, but the custom of wearing bandanas remained, and from them evolved the black neckerchief worn by today's Navymen.



SAILING SAILORS—Men of Pearl Harbor Sailing Club show trophy they won in an Hawaiian yacht race. (L. to Rt.) LT B. Montrose, LT J. Holian, CAPT G. C. Cook, Club Commodore, and Chief Andy Andreoletti.

In the 1850's the British Admiralty appointed a committee to design a uniform for the enlisted man. This committee found that enlisted men had been decorating their collars with more and more fanciful white designs,

LEASE ON LIFE—World War II-built USS Perry (DD 844) rejoins the Fleet with latest in ASW weapons and detection gear after FRAM Mark I renovation.





POCKET SIZED—Crew of USS Weatherford (PC 618) lines up for inspection alongside their small but complete ship now operating out of Key West, Fla.

some more elaborate than others. They settled upon the three white stripes as the standard ornamentation for the EM's collar.

Then, in 1866, it was decided that U.S. Navymen would wear on the collar of their uniforms rows of white tape with white stars in the corner: three rows of tape for petty officers, seamen and first class firemen; two rows for ordinary seamen and second class firemen; and one row for landsmen, coal heavers and boys. For a period after the Civil War this tape was removed from the uniform, and was not put back until 1876.

The significance of the stars in the corners of the collar is not clear. It's possible that they, along with the rows of tape, are an adaptation of some of the designs embroidered by those old-time sailors.—ED.

First Concern in First Aid

SIR: We are in doubt as to what should be of primary concern when administering first aid.

The (Revision A, NavPers 10317A) AT Third and Second Training Manual says on page 13: "If there is any serious bleeding, stop it first."

The current edition of *The Bluejackets' Manual*, however, states: "Your first concern is to check the patient's breathing, etc. Serious bleeding is your second concern."

Could you clear up this conflict between the two publications? — D.F.G., PN1, USN.

• "Aviation Electronics Technician 3 and 2" (NavPers 10317-A) page 13 is correct. It is in agreement with pages two and six of the "Standard First Aid

Training Course" (NavPers 10081), which has been checked out with and concurred in by the Bureau of Medicine and Surgery.—ED.

Fighting Ships and Men

SIR: I read in a back issue (March 1960) a letter about the ex-battleships,

Fifty Per Cent Right

SIR: I was in the Navy from 1920 to 1923, and spent most of that time on the Yangtze River, where my ship was *uss Huron*.

I was telling an old buddy about this, and when I said *Huron* had 32 boilers and eight fire rooms he didn't believe me.

Will you let me know if I am right or wrong?—H.O.G., ex-USN.

• We can't say you're right, but on the other hand, we can't say you're so far wrong either.

Huron, built as the armored cruiser *uss South Dakota* (AC 9), was one of three armored cruisers constructed under an Act of Congress of 7 Jun 1900. The other two were *uss Colorado* (AC 7), later renamed *Pueblo*, and *uss Maryland* (AC 8), later renamed *Frederick*.

All three of the ships were originally scheduled to be fitted with 32 boilers. However, only *Colorado* was actually fitted with them. *Maryland* (Frederick) and *South Dakota* (*Huron*) each had 16 water tube boilers.

Incidentally, until we checked with the Ships' History Section, 32 boilers sounded like a fantastic number to us, too.—ED.

uss Idaho and *Mississippi*, which were sold to Greece in 1914. In correspondence with an authority, Mr. Vernon J. Miller, of Arbutus, Md., I received some information on these ships which might be of interest to your readers.

Rated as second class battleships when they were commissioned in 1908, *Idaho* and *Mississippi* were sold to Greece in 1914. They both served as battleships until 1929, when they were relegated to harbor duties.

In 1931 the guns of both ships were removed to serve as shore batteries.

By World War II, when the ships were little more than immobile hulks, without military value, they were sunk by German dive bombers.

Incidentally, another item in Letters to the Editor in the same issue indicates that the first action for which a Medal of Honor was awarded was that of John Williams of *uss Pawnee* on 21 Jun 1861. In this regard, I quote from J. R. Spears' "History of Our Navy," Volume Four, Page 110:

"The conflict at Elizabeth City (N. C.) is especially notable, because the deed of a heroic gunner led Congress to pass an act creating a Union Naval Medal. Says Lossing: 'An extraordinary example of heroism was exhibited during this engagement by John Davis, a Finlander, who was a gunner's mate on board the *Valley City*. A shell entered that vessel, and, exploding in the magazine, set fire to some woodwork. Davis was there, and, seeing the imminent danger to the vessel and all on board, because of an open barrel of gunpowder from which he had been serving, he seated himself upon it, and so remained until the flames were extinguished. For this brave act the Secretary of the Navy rewarded him with the appointment of acting gunner in the Navy (March 11, 1862) . . . Congress approved December 21, 1861 this act and presented him with a Medal of Honor, on which are inscribed the following words—Personal valor, John Davis, Gunner's Mate, *uss Valley City*, Albemarle Sound, February 10, 1862.'"

The act approved was the establishment of the Medal of Honor.—John S. Rowe, Chester, Pa.

• Thanks for the postscript on *Idaho* and *Mississippi*. We find it hard to justify on logical grounds, but the background of old ships of this sort has always fascinated us. You, too?

As for the other information—on John Davis' action leading to the establishment of the Medal of Honor—we think you'd better recheck the facts. You'll notice that the medal was authorized on 21 Dec 1861, while Davis didn't perform his heroic act until 10 Feb 1862—more than seven weeks after the medal had been established. Consequently, his heroism could not have led to creation of the medal, since Congress had already established it.—ED.

Weatherford a Winner

SIR: Have you ever thought of comparing a 173-foot sub chaser with a cruiser? Such a suggestion is not as foolish as some old sea dogs may think.

If you'll bend an ear, the CO (LTJG J.S. Buggy Jr., USN) of *uss Weatherford* (PC 618) will cut you in on the scoop.

He explains that his cocky little man-o-war is carried on the Navy's books as a "complete ship." She has all the gear that the bigger ships have, but in a smaller package.

An ocean-going ship, capable of sustained operations on her own, *Weatherford* is currently operating out of Key West, Fla., conducting projects for the Test and Evaluation Detachment based there.

Weatherford has a long and useful record of commissioned service. She was built in 1942 and saw service in the European Theater of operations during World War II.

Today at Key West, the 441-man crew is willing and ready to take part in any sporting event, fund-raising drive or, for that matter, anything where competition is involved.

Weatherford is highly respected in the Key West area and the popular saying down here is "if we wanna win this thing, let's get *Weatherford* on our team."—C.R.L., ENS, USN.

• *We only wish that we received more reports similar to yours from other Fleet units—even larger ones.*—ED.

Saved by a Snorkel

SIR: We of *uss Cobbler* (SS 344) dip our ensign in salute (and apology) to Mr. S. H. Soule and his shipmates of *uss L4* who sailed up the James River in 1920. Regarding a *Cobbler* first, our date of 1956 obviously is now no better than a second. (ALL HANDS, June 1960.)

In a weak attempt to salvage some of our laurels, we submit a revised claim—the first snorkel-equipped submarine to transit the James River to Richmond. Mr. Soule, will you relent and accept that? —F. F. Cliffords, LCDR, USN.

• *We will say this—of all the losers within recent memory, you have been by far the most gracious.*

On behalf of uss L4, we accept—and we're moved to hope that your revised claim stands up.—ED.

Eye Catcher

SIR: I found your article on *Saginaw* at Kure (in reply to CAPT W. V. Gough's letter to the editor, May 1960 issue of ALL HANDS) extremely interesting. However, my curiosity was aroused — why did the coxswain in the boat that made the trip to Kauai see fit to change his name from William *Halford* to William *Melford* during the trip? Perhaps there's an even more interesting story here. Or is this your sly way of checking to see if your readers

really read ALL HANDS from cover to cover?

If this should turn out to merely be an oversight on the part of your proofreader, bear in mind that to forgive is divine.—P.B.K., LTJG, USN.

• *You're a man after our own heart. Several others noticed the error too, and took the trouble to tell us about it, but they did so only to twit us about a mistake. In your case, though, your intentions were well-directed—you hoped to find an intriguing or off-beat story behind a seemingly innocent situation.*

Unfortunately, there is no intriguing story. Halford became Melford, we're sorry to say, through the divided attention of a sleepy proofreader (who may, indeed, some day be forgiven).

Incidentally, you may have provided us with the perfect out. If, in the future, we were guilty of another sleepy job of proofreading, we could claim it was just our sly way, etc. . . .

Thanks, and good reading — from cover to cover.—ED.

EAOS, OST, and Seavey

SIR: Could it be that my Seavey card is in the dead file at BuPers?

I reenlisted in June 1959, and during that same month I filled out my Seavey card. I now have over 32 months' sea duty and so far my name is not being carried on the shore duty list. What can I do to make sure I remain eligible for shore duty?—R.S.B., AD2, USN.

• *Here's the story about you and Seavey. Your Seavey card was received in the Bureau of Naval Personnel in September 1959. It showed that your EAOS (Expiration of Active Obligated Service Date) was August 1959 and your overseas tour date was also August 1959.*

Since your card showed insufficient obligated service, you received no or-



FUN FOR ALL — Young Navy enthusiast from Nagasaki, Japan, enjoys visit to *USS Saint Paul* (CA 73) as T. R. Pike, FN, USN, shows cruiser's guns.

ders from the Bureau. But, since your OST (overseas tour) date was also August, the Fleet transferred you to the U.S.

When this happened, BuPers was notified and you were removed completely from the Seavey. You are eligible for shore duty again after you have been at your present duty station for one year. But, before you can again be placed on the Seavey, you must re-submit your Seavey card.—ED.

IN PORT — Things bustle pierside at NAS, Ford Island, Pearl Harbor, as *USS Midway* (CVA 41) is made ready for a tour of duty with the Seventh Fleet.



Tour for Non-Rotating Ship

SIR: In the February 1960 issue of ALL HANDS you published a list of the established tours for overseas shore duty. However, no mention was made of non-rotating ships that are based overseas. Are they the same?—J.R., SN, USN.

• *Tours for overseas shore duty are uniformly established for all services by the Department of Defense while the length of tours of duty in non-rotating ships are established by the Fleet or Type Commander concerned. The length of these tours, however, can be as long as, but no longer than the prescribed DOD tour for any particular area.*—Ed.

Visit to Russia

SIR: In your February 1960 issue you state that before *uss Maury* (AGS 16) arrived in Odessa in the fall of 1959, there had not been a U.S. Navy ship in that Russian Black Sea port since February 1945.

However, while I was serving on board *uss Moreno* (ATF 87) in the latter part of March 1945, we put into Odessa, in company with *W. R. Chamberlain* to receive Americans who had been liberated from German prison camps.

By the way, what has become of *uss Moreno*, and also *uss Hopi* (ATF 71)? I served with pride on both, and search every issue of ALL HANDS for mention of them.—CH., SOG1, USNR.

• *How right you are. Moreno sailed from Naples 7 Mar 1945, with *uss Tackle* (ex-*W. R. Chamberlain, Jr.*) in tow. They anchored at Istanbul on 12 March, and sailed the next day for Odessa, arriving there on 15 March.*

Now, as for the second part of your letter — Moreno was placed in reserve out of commission on 13 Aug 1946. She was berthed with the Texas Group, Atlantic Reserve Fleet. Hopi, after active service with the Atlantic Fleet, was decommissioned and placed in Reserve at New London, Conn., on 9 Dec 1955. Both were still in reserve when we made a recent check.—Ed.

Navy Dependents in Iceland

SIR: I would like some information concerning dependents of men assigned to Service Craft at Reykjavik, Iceland.

Can dependents of crew members of these small ships be authorized government transportation to Reykjavik and can they bring household effects? If the dependents came here at their husband's expense, can he be reimbursed?

Some of the men aboard are married to Icelandic girls. Will the Navy authorize transportation for these women when their husband receives permanent orders to new duty?

And what about leave? After six months here, men are returned to the States for 15 days' leave. Can men who have married Icelandic girls take them on leave via government transportation?—L. D. W., SK2, USN.

• *Some families will be able to join their husbands in Iceland, and if housing is available, their household effects will also be shipped.*

A service craft assigned to a shore activity or to an overseas base is considered (for purposes of payment of travel claims and shipment of household effects) to be on permanent duty at the activity or overseas base to which the craft is assigned.

Before a family can go to Iceland, their sponsor must meet the requirements established in BuPers Inst.

Permanent CPO Status for LDOs

SIR: Several men at our station have been appointed Ensign (LDO) from enlisted status. At the time of appointment they were CPO, acting appointment, and since have fulfilled the requirements for change in status to CPO, permanent appointment.

Are there any provisions through which men serving in dual status (i.e., permanent enlisted, temporary officer) may receive permanent appointment as CPO?—L.C., YN2, USN.

• *They can, indeed, and BuPers Inst. P1430.7D contains all the necessary information on applications, recommendations, etc. Permanent appointment certificates are issued in the same way as they would be if the man were not a temporary officer. You take it from there.*—Ed.

1300.26A. In general, this means that he must be an E-4 with over four years' service or E-5 and above, have a minimum of one year of obligated service, and be reasonably expected to remain attached to the ship for at least a year after his dependents arrive at the overseas station. When area entry is approved, and if housing is available, their household effects may also be shipped.

If the family was brought to Iceland at the sponsor's expense, (and if he would normally be permitted to bring his family into that area), he would be reimbursed for travel only to the point of embarkation, McGuire Air Force Base, Trenton, N. J., because the government normally furnishes transportation from there to Iceland.

If you are married to an Icelandic girl when you receive PCS orders, and if you are E-4 with over four years' service, or E-5 and above, she is entitled to government transportation the same as any other wife of a Navymen. You must, however, secure approval of immigration authorities before she can enter the United States.

Generally, the same goes for leave. If authorized by immigration officials, and if you qualify for dependents travel at government expense, your wife, even though a citizen of Iceland, will be allowed to accompany you on leave aboard a MATS plane.—Ed.

Ship's Rough Deck Log

SIR: I'd like a little information on the ship's rough deck log.

First—when a ship is moored, the typical midwatch entry begins, "Moored starboard side to pier . . ." Entries for the other watches start out, "Moored as before . . ." In drydock the midwatch entry opens with, "Resting on keel blocks in drydock . . ." For the other watches in this situation I've always written, "Docked as be-

READY FOR RELOADING — Ammunition ship *USS Mauna Kea* (AE 22) rides high indicating she is ready to get another hot cargo to deliver to the Fleet.



fore . . ." However, I'm now told it should be, "Resting on keel blocks as before . . ." Which is proper?

Second—I'd like to know if there is any regulation which says the reports on magazines and temperatures are a standard 1000 entry. We are told to log these items at that time every morning, even if we receive the reports long before or after 1000. Similarly, we are told the weekly report on the inspection of the sprinkling and flooding system is a standard entry for Wednesday, regardless of what time during the week the inspection is actually made.

Incidentally, our information on the deck log comes from *The Watch Officer's Guide and Instructions for Keeping Ship's Deck Log*—NavPers 15876 (New 1-55). Are these the latest publications dealing with this subject?—P. V. F., SM1, USN.

• *NavPers 15876 (New 1-55) is not the latest edition of that publication. It has been superseded by NavPers 15876 (Rev. 5-56). As for The Watch Officer's Guide, the Eighth Edition, 1960, is the latest revision of that book.*

The 1956 revision of NavPers 15876 does not specify the exact phraseology to be used in every instance in entering the remarks for a watch, but they do provide sample entries for guidance. These samples do not have to be followed word for word.

Since any entry that is complete, accurate, clear and in standard naval phraseology will be acceptable, either "Resting on keel blocks as before" or "Docked as before" would be all right.

The inspection of magazines and temperatures is not a required 1000 entry. Most ships are probably recording it as such just because it is illustrated that way in the sample entries in NavPers 15876 (Rev. 4-56), which is being used as a guide.—Ed.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, **ALL HANDS MAGAZINE**, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *North Sea Mine Force*—The 20th annual reunion of this association will be held at the Hotel New Yorker, on 13, 14 and 15 October. For information, write to J. J. Kammer, 54 Walnut Ave., Floral Park, L. I., N. Y.

• *uss Owen (DD 536)*—The 13th annual reunion will be held at the Sinton Hotel, Cincinnati, Ohio, on 3, 4 and 5 September. Details are available from Richard Tucker, 7738 Sunset Drive, Elmwood Park, Ill.

• *uss West Virginia (BB 48)*—The sixth annual reunion will be held in the V.F.W. Hall, Gardena, Calif., on 3 December. For more details, write to R. A. Brown, V.F.W. Hall, 162nd and Western Ave., Gardena, Calif.

• *82nd Seabees*—The 14th annual reunion is scheduled for 26-27 August, at the Pick-Congress Hotel, Chicago, Ill. Information is available from James Greenwood, 147 Bathurst Ave., North Arlington, N. J.

• *uss Colorado (BB 45)*—A reunion of those who served on board during World War II is being planned. Interested shipmates may write to Budd Bratton, 167 East Marion St., Mt. Gilead, Ohio.

• *Naval Reserve Division 11-48(L)*, Santa Monica, Calif.—All former division members interested in holding a reunion with time and place to be decided may write to CHMACH L. L. Lance, USNR, U.S. Naval and Marine Corps Training Center, 3400 Airport Ave., Santa Monica, Calif.

• *uss Vincennes (CL 64)*—It is proposed to have a reunion of the men who served on board. Interested shipmates may write to Peter H. Capp, 19 Chatham St., North Plainfield, N. J.

When Does Leave Begin?

SIR: I have a question about Article C-6304 of the *BuPers Manual*, which deals with "Leave Involving Travel in a Duty Status to and from the United States." Namely, is it the intent of that article to permit someone from an overseas station to travel to and from the Continental U.S. for leave without being charged with leave until he actually reaches the United States or reports to a port of embarkation for his return trip overseas?

In other words, is the term, "travel in a duty status," applicable to everyone who goes on leave to the U.S. from

overseas?—M.R.F. CWO2, USN.

• *No, that is not the intent of the article. In fact, it is presently being changed to provide that, except for emergency leave involving travel outside CONUS, leave begins and ends upon departure from or return to the duty station.*

The term, "travel in a duty status," does not apply to everyone going to or from stateside leave. As used in Article C-6304, it is only intended to describe the correct handling of cases in which such travel has been permitted. It is not meant to let everyone going on Stateside leave travel in that status.—Ed.

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SERVICESCOPE

Brief news items about other branches of the armed services.

A 50,000-GALLON COLLAPSIBLE FUEL TANK—believed to be the largest of its kind—has been developed by the Army.

Fabricated of two-ply nylon cloth coated with synthetic rubber, the tank when empty weighs about 2700 pounds. It measures 64 feet long, 24 feet wide and stands approximately six feet high when filled to capacity. It can be rolled and packed for transport in a canvas carrying case.

★ ★ ★

A SERIES OF TESTS to study the use of railway facilities for carrying mobile *Minuteman* ICBMs is being conducted by the Air Force this summer.

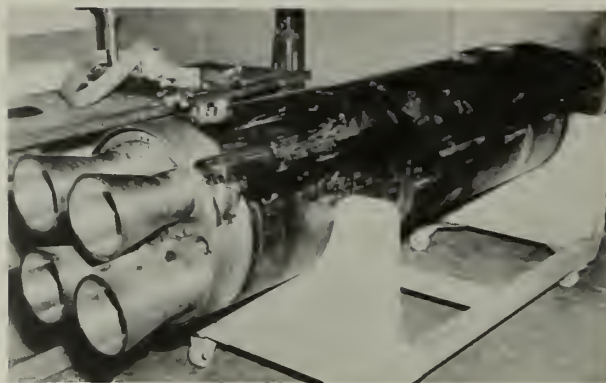
No missiles will be carried on the test trains during the early phase of the tests, which will be concerned with mobility control and communications operations.

Six tests are being made. The train consists of approximately 14 cars and will include a command and control car linking the test train commander with Hill AFB, Ogden, Utah, and the SAC Command Post at Offutt AFB, Neb. Other cars will provide support for personnel and storage space for fuel and supplies. Present plans to be tested include the feasibility of using empty sidings throughout the country as launching sites, based on previous trajectory computations, to selected targets into an enemy's heartland.

The *Minuteman* is a three-stage solid propellant, 5500-nautical-mile ICBM now in development. Seven consecutive successful restrained launches have been made with test models from silo sites at Edwards Air Force Base, Calif. Contracts have been awarded for the construction of prototype *Minuteman* railway launching cars.

The success to date in the over-all development and test program has enabled the Air Force to advance *Minuteman's* anticipated operational date from 1963 to the summer of 1962.

In the restrained launches the missile carried only enough solid propellant to thrust from its underground silo for a short-duration flight, during which it was arrested by 2000 feet of nylon cable in the shape of an inverted "Y" attached to the missile's dummy nose. The cable prevented the test vehicle from falling back and



IN THE MILL—Scaled down, one-third model of a USAF's *Minuteman* ICBM, is readied for the horizontal test silo.

possibly destroying the underground test silo.

The *Minuteman* is intended to be used in both underground silos and mobile *Minuteman*-on-rails launching pads by the Strategic Air Command.

★ ★ ★

THE ARMY AND AIR FORCE conducted two separate training exercises within a three-week period in March that featured the longest flight culminating in an airborne mission and the largest peacetime transport exercise in U. S. military history.

In the first of these operations—*Exercise Banyan Tree II*—more than 1200 paratroopers from the 1st Battle Group of the 325th Infantry of the 82nd Airborne Division were dropped in Panama after a seven-hour, 2000-mile flight from Fort Bragg, N. C.

The U. S. paratroopers were part of a six-nation defense force that included troops from Chile, Peru, Panama, Colombia and Brazil. Other U. S. Army elements taking part in the operation included the 1st Battle Group of the 20th Infantry, which forms the major part of the permanent garrison in the Canal Zone. Approximately 5000 troops and 150 aircraft were used during the three-day exercise.

Banyan Tree II featured amphibious landings as well as the airborne assault. As these phases of the operation were carried out, F-80 fighter bombers from Chile and Peru provided close air support and sixteen F-100 *Super Sabre* jets from Homestead AFB in Florida, provided high-cover, fighter defense and support.

During the second operation—*Big Slam/Puerto Pine*—78 Strategic Army Corps units consisting of about 20,000 troops and 11,000 tons of supplies from Army posts throughout the U. S. were flown to Puerto Rico in 227 MATS planes.

Troops taking part in this mobility test included elements of the 82nd and 101st Airborne Divisions and the 4th Infantry Division. Equipment ferried by air to Puerto Rico included an eight-inch howitzer, one M41 tank and *Honest John* rocket launchers.

Troops and equipment were loaded at 14 different air bases in the U. S. and unloaded at Ramey AFB and NAS Roosevelt Roads, Puerto Rico.

During this two-week operation C-118, C-121, C-124 and C-133 aircraft flew over 5,500,000 miles. At the peak of the exercise MATS aircraft were landing in Puerto Rico at the rate of eight an hour.



BIG EYE—Army's compact all-weather radar eye can spot single enemy half mile away in darkness or fog.

THE UNITED STATES AND DENMARK plan to install and operate a portable nuclear reactor to provide year-round heat and power at the U. S. Army's Camp Century on the Greenland ice cap.

The reactor will be the first remote-area installation of "portable" atomic power in the free world.

The prefabricated nuclear-power station will be installed in snow tunnels at Camp Century. The site is an advanced base of the Army's Polar Research and Development Center and will be manned by approximately 100 engineers and scientists who will be conducting research studies on the ice cap.

The power plant will deliver about 1500 kilowatts of electricity for power and space heat plus about 1000 pounds of steam per hour to be used for purification. Operation is scheduled to begin late this summer.

The Army estimates that at some arctic installations from 70 to 80 per cent of the supply effort involves transportation of fuel oil for power generation. At remote sites which must be supported by airlift, the delivered cost of diesel fuel exceeds \$1.00 per gallon. The estimated annual requirement for a comparable diesel-fueled plant, would be approximately 1,000,000 gallons. In contrast, it is estimated that the reactor will operate for 12 months on a single loading of enriched uranium fuel—less than a single plane load.

★ ★ ★

EIGHTEEN UNDERGROUND LAUNCH SITES for the *Titan* intercontinental ballistic missile will be constructed at Davis-Monthan AFB near Tucson, Ariz., and McConnell AFB near Wichita, Kans.

Each of these bases will provide support facilities for a 1200-man *Titan* Squadron as well as the underground launching sites.

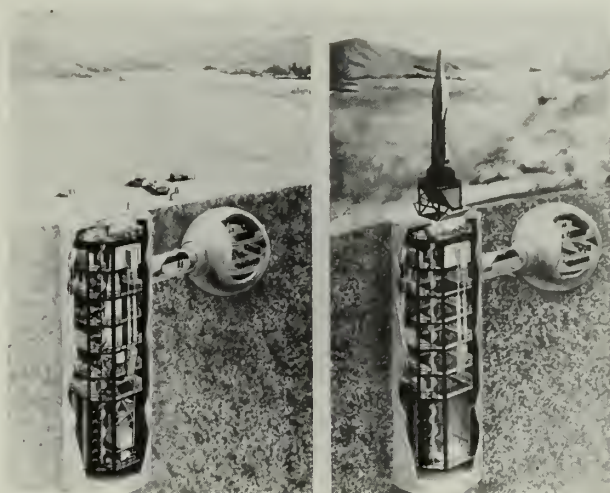
With these two additions, the Air Force will have a total of seven bases for launching the *Titan* ICBM. The other five are: Lowry AFB, Denver, Colo.; Ellsworth AFB, S. D.; Mountain Home AFB, Idaho; Larson AFB, Wash., and Beale AFB, Calif.

★ ★ ★

A FIVE-STAGE STRONGARM RESEARCH ROCKET, launched by the Army in cooperation with the National Aeronautics and Space Administration, reached an altitude



I SPY—Rockets aid take-off of Army combat surveillance drone which gets info by photos, TV, or other devices.



MISSILE FOX HOLE—Drawing of Air Force *Atlas* [ICBM] silo emplacements shows how it might look when finished.

of approximately 1050 miles in a recent flight.

Designed to measure upper atmosphere electron densities, the experiment conducted from NASA's launch facility at Wallops Island, Va., was one of a number planned by various agencies in connection with the U. S. program for international geophysical cooperation as a continuation of the IGY of 1957-58.

The research rocket was made up of an Army *Honest John* rocket, two *Nike-Ajax* boosters, a modified *Recruit* and a "scaled" *Sergeant*.

Instruments carried in the rocket's fiber glass nose cone included a transistorized temperature-controlled transmitter and oscillator.

The 7125-pound rocket reached a speed of 17,000 feet per second at burnout. Its total flight time from take-off until the nose cone plunged into the Atlantic Ocean about 800 miles from the launching pad was about 20 minutes.

Data was obtained during the rocket's flight from a tiny transmitter that operated on two frequencies. Its complete assembly, including antennas and power source, was inclosed in the rocket's nose cone. The nose cone was specially designed to protect the delicate instruments against high temperatures.

Transmission began 30 minutes before the five-stage rocket was launched and continued until the nose cone plunged into the ocean. Information on the experiment will be made available by the U. S. to all nations participating in the IGY program.

★ ★ ★

THE AIR FORCE has received Department of Defense approval to go ahead with the design and ground testing of its *Dyna Soar* space ship.

If everything goes according to present plans, a piloted, heat-resistant winged glider will eventually be boosted into orbit by a modified *Titan* ICBM and glide around the world at speeds in excess of 17,000 miles per hour. After orbiting the earth, it will reenter the atmosphere and make a conventional ground landing.

The *Dyna Soar* aerospace ship derives its name from "dynamic," in reference to its early powered-stage of launching, and "soar," for its ability to glide in space.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



NEW BOAT of torpedo retriever fleet at Pearl Harbor Sub Base is first built from keel up for the job. It carries twice the load of old at left.

Torpedo Retriever Fleet

Pearl Harbor's torpedo retriever fleet does a multi-million dollar business annually. Last year, for example, the tiny three-boat force recovered over 300 torpedoes valued in excess of four million dollars.

A new addition to the torpedo retriever fleet of the Pearl Harbor Submarine Base is AVR-4, first such boat built from the keel up solely for torpedo recovery purposes. Seventy-two feet long, and powered by two 500-hp diesels, she can then carry as many as 16 torpedoes at a time, and has a cruising range of some 450 miles. Highly maneuverable, she can make a complete turn within two boat lengths.

She joins three converted crash boats which have been handling torpedo recovery chores in Hawaiian

waters. Those crash boats had to be modified to carry heavy duty winches, and were fitted with a special sea ramp in the stern to aid in recovery.

During antisubmarine warfare training exercises conducted in the Hawaiian area, submarines fire practice-torpedoes at surface units. These torpedoes are equipped with dummy warheads, are designed to stay afloat at the end of their run, and carry a special dye which dissolves in the water and acts as a marker for the recovery boat.

Surface operating units engaged in the exercise could recover the torpedoes, of course, but this would be both expensive and time-consuming. The retrievers have proved they can do the job much more quickly and economically.

SEATO's Operation Sealion

The at-sea phase of the Southeast Asia Treaty Organization's (SEATO) maritime exercise, "Operation Sealion," has ended near Singapore. More than 40 ships, including 11 units of the U. S. Seventh Fleet participated.

Sealion is the first SEATO exercise in which all eight member nations have contributed forces. The antisubmarine hunter-killer group, which included *uss Yorktown* (CVS 10), was escorted by destroyers and frigates from the Pakistan Navy, the British Navy and the U. S. Navy.

The carrier task group included the Royal Navy carrier *Albion* and cruiser *Belfast*, the Australian carrier *Melbourne*, as well as escort ships from the Royal Navy, French, Australian and the U. S. Navy.

Also participating were units from Thailand, New Zealand and the Philippines.

Speed of Sound in the Sea

Researchers working with the Navy's antisubmarine warfare program have developed a new instrument for measuring the speed of sound at great underwater depths.

Known as a velocimeter, the device provides accurate information on the speed of sound and the density of water to a depth of 16,000 feet—in contrast to the 900 feet reachable with a bathythermograph.

The new instrument eliminates many problems that have been encountered in the exploration of ocean depths. For example, by providing exact and specific information on the true velocity of underwater sound, it does away with the need to determine pressure, temperature and salinity. These factors have to be taken into account before sound velocity can be calculated under other systems—and even then, the amount of salt is merely an estimate.

The basic velocimeter system consists of two separate battery-powered electronic units. One is submerged to the depth being explored, and the other is placed aboard a surface ship. The underwater unit generates pulses which are transmitted to the surface. There, the pulses are amplified and doubled in frequency.

YESTERDAY'S NAVY



On 3 Aug 1886 construction of USS *Moine* was authorized. On 9 Aug 1815 Tripoli agreed to end its raids on American shipping after a show of force by Commodore Stephen Decatur's squadron. On 15 Aug 1944 an Allied naval force landed U.S. and French troops in southern France. On 19 Aug 1812 USS *Constitution* defeated HMS *Guerriere* in a frigate duel southeast of Halifax. On 31 Aug 1842 Congress established the Bureau of Yards and Docks; Construction, Equipment and Recruiting; Provisions and Clothing; Ordnance and Hydrography; and Medicine and Surgery.

Long-Range Radio Transmitter

A contract for long-range ship-board radio transmitters (the second for this type equipment) has been awarded by the Navy. Two of the transmitters will be delivered late this year.

Simple design and a high degree of stability have made these systems particularly adapted to Fleet and submarine installation.

Two types of transmitters are being produced. The AN/WRT-1 system provides radio telephone and teletype service. The AN/WRT-2 is specifically designed for submarine service.

Going on Twenty-One

USS Dixie (AD 14), which gives her name to the Navy's largest class of destroyer tenders, recently celebrated 20 years of service to Pacific Fleet destroyers.

The first ship to be designed from the keel up for the purpose of repairing and servicing modern Fleet destroyers, *Dixie* was formally placed in commission in April 1940 at the Philadelphia Naval Shipyard.

Her 20 years of commissioned service is the longest span of continuous service of any ship in the destroyer force and is exceeded only by few ships of the active Fleet.

Dixie's entire career has been devoted to serving destroyers of the Pacific Fleet. Although San Diego has always been her home port, her first five years were spent, for the most part, in close support of destroyers in World War II in the combat zone. From advanced bases in the South Pacific she provided for the needs of such renowned outfits as ADM Arleigh Burke's Little Beavers (Destroyer Squadron 23) in their operations up "The Slot."



NAVY-TO-NAVY—Indonesian midshipmen inspect negative during visit to PhibPac Flagship *USS Eldorado* (AGC 11) while in Surabaya, Indonesia.

Later from bases in New Guinea, the Western Carolines and the Philippines she supported destroyers in the final campaigns of the war.

In 1946, *Dixie* participated in "Operation Crossroads," the atomic tests at Bikini. Here she provided services to destroyers and other vessels of the Fleet.

Dixie was called again from her homeport when trouble arose in Korea. In 1951 she participated in the bombardment of the East Coast of Korea.

A familiar sight in San Diego, where most of her services are rendered, *Dixie* takes her turn along with sister-ships, *uss Prairie* (AD 15) and *Piedmont* (AD 17) as Flagship for Commander Cruiser-Destroyer Force, U.S. Pacific Fleet, and in serving destroyers in the Western Pacific. Since the outbreak of the Korean conflict she has made six trips to the Far East, and has

another in prospect this summer.

Many years of future service to new and modernized destroyers are in prospect for *Dixie*. As a part of the FRAM (Fleet Rehabilitation and Modernization) Program she will undergo extensive improvements and alterations after her return from the Far East. Facilities for servicing the new weapon systems installed in destroyers will be added to her present capabilities. Special emphasis will be given to support the new antisubmarine armament now being provided to destroyers.

Dixie's services to destroyers now include a highly technical work force manning some 30-odd repair shops, medical and dental care, food and personal services not available on destroyers. Destroyers being tended receive power and other utility services from the tender, thus enabling them to perform maintenance on their own equipment.

SIDE BY SIDE—Destroyer tender *USS Dixie* (AD 14) takes care of ships of Destroyer Squadron 111 in San Diego Bay.





Isbell to the Rescue

uss *Arnold J. Isbell* (DD 869) steamed 328 miles at high speed from Subic Bay, Philippines, recently to rescue 104 crewmen of the Philippine fishing boat *Marli-5*, aground on Baker Reef in the South China Sea.

Isbell, a unit of the U. S. Seventh Fleet under the command of CDR H. R. Tall, USN, steamed the distance in some 12 hours, after threading her way through reefs and shoals

with the aid of sonar and aircraft of Patrol Squadron 40. The aircraft acted as seeing eye dogs by flying ahead and marking obvious shoals with smoke pots. *Isbell* closed to within 4000 yards of the wreck before being halted by rapidly shoaling water.

Her whale boat, commanded by ENS Robert E. Foley, USNR, and assisted by ENS Cheever Tyler, USN, proceeded to the wreck to bring off survivors.

Arriving at the scene, the crew found the *Marli-5* solidly on a reef and breaking up. One hundred and four crewmen were in boats and rafts which had been dropped from Air Force search planes.

The whale boat took the rafts in tow and brought them to the ship, then returned to tow the boats which were manned by oarsmen. Before dark the 104 survivors were on board *Isbell* and receiving their first meal in 24 hours. Crewmen of *Isbell* gave up their bunks to the survivors. At sunset, the destroyer was cautiously feeling her way through the reefs into clear water.

This rescue was credited to the team work of the short-handed crew. *Isbell's* hasty departure from Subic Bay cost her 20 per cent of her regular crew—they couldn't make it back to the ship from liberty in time. All hands aboard doubled up to get the job done.

The crew of the whale boat which rescued the Philippine crewmen were: O. S. Robinson, BM1, P. F. Parker, BM2, L. H. Robinson, SN, R. L. St. John, EN2, B. Roten, SN, J. L. Barnes, SN, and R. R. Paredes, TN.

Three Hundred Seconds at Sea

The Atlantic Ocean can be a mighty deep place to go swimming—but boatswain's mate seaman Ervin A. Burke of the destroyer *uss Borie* (DD-704) took a header into it recently, and barely had time to get wet.

Burke was dragged into the ocean when a line parted during refueling operations with the antisubmarine support carrier *uss Lake Champlain* (CVS 39) off the Virginia Capes.

Fortunately for him, the destroyer *uss Soley* (DD 707) was steaming some 500 yards astern at the time the accident occurred. She imme-

diately started rescue maneuvers, and was alongside *Burie* within three minutes. The deck rescue detail lowered a cargo net to the water and, assisted by two *Soley* crewmen who climbed down to assist him, *Burie* clambered aboard. He was in the water less than five minutes altogether.

Keeper of the Drones

"Request 10-minute standby to launch drone."

When these words come from *uss Kalmia* (ATA 184) they mean another gunnery exercise for West Coast ships is about to begin.

Kalmia is operating as a TPA (Target Pilotless Aircraft) control ship in Southern California waters—a job which makes her days long and keeps her crew busy. An average day finds her underway by 0500, and she launches, controls and recovers drones until late afternoon. It's usually about 1930 by the time she returns to port to pick up drones for the next day's exercises.

All sorts of ships have made use of *Kalmia's* services—either at their own request or in following Training Group schedules for refresher or shakedown training. In the first four months of 1960 the auxiliary ocean tug serviced 110 ships, including carriers, cruisers, destroyers, auxiliaries, minesweepers and amphibious ships of all types. Among these were not only American ships, but also ships from Brazil, Greece, Vietnam and South Korea. During the four-month period a drone unit from VU-3 was aboard, flying its pilotless aircraft a total of over 5000 minutes.

Besides doing TPA work, *Kalmia* finds time to serve as a reference ship for surface gunnery practice, tow target sleds and lend a hand in transfer-at-sea and tow-and-be-towed exercises.

She also finds some time for play. The ship sponsors a bowling league in which 27 of *Kalmia's* 36 men have participated at one time or another. Even considering duty sections, an average of about 20 men show up at the alleys when the league is rolling. In addition, a softball team, acey-deucey and pinochle tournaments, dependents' cruises and ship's parties help keep *Kalmia* a happy ship.

As proof of her happiness, *Kalmia*



GOOD DEED DONE—USS *Arnold J. Isbell* (DD 869) pulls pier-side at Manila after taking part in the rescue of 104 Filipino fishermen from sinking ship.

points proudly to the fact that during the last year, eight out of nine men due for separation have reenlisted on board.

Search & Rescue Center

Guarding against the loss of lives in a 10 million-square-mile area of the central Pacific is the job of the Hawaiian Sea Frontier Search and Rescue Center at Pearl Harbor.

Last year there were 2363 search and rescue incidents (SARs) coordinated by the center—an average of almost seven a day. They ranged from multi-engine plane crashes to dropping anti-rabies vaccine for a child aboard a ship at sea. At any given time there are some 75 ships and 30 planes within the sea frontier's boundaries to carry out these missions.

During the first quarter of 1960 the major SARs involved three crashes, two controlled ditchings, one bail-out, 89 intercepts and 22 ships in distress.

The coordinated efforts of Navy, Army, Air Force, Marine Corps, Coast Guard and civilian agencies are required to save lives in the vast central Pacific.

The 76th Air Rescue Squadron at Hickam Air Force Base provides helicopters and SC-54 twin-engine search planes with a range of about 3000 miles.

The Naval Air Stations at Barber's Point and Ford Island furnish 63-foot AVR boats and helicopters, and Kwajalein, Midway, and Wake Islands have *Albatross* seaplanes and more AVRs.

R5D four-engine search-configured transports, *Albatross* UF twin-engine seaplanes, cutters, buoy

tenders and ocean station ships are furnished by the Coast Guard.

For land searches throughout the 50th State, the Army's Land Rescue Team is available. In March, for example, a Marine stranded on the face of a cliff near Kolekole Pass on Oahu was rescued by the team after two days and three nights.

Kaneohe Marine Corps Air Station on Oahu has helicopters and two AVR boats for incidents close to shore.

Perhaps the most potent SAR aid is rendered by Navy aircraft carriers, cruisers and destroyers going to and from U.S. Seventh Fleet duties in the Far East. Merchant ships and civilian aircraft are also often requested to join in searches.

There is no set length for a search. It may last a day, several days or even weeks. A man overboard once swam for 30 hours before being picked up, and in another instance during World War II, a group of men floated 28 days in a liferaft before they were rescued.

The round-the-clock vigil maintained by the search and rescue center and the cooperation of other military services and civil agencies insure that those who need assistance will be helped—and fast.

—Jim Wood, JO2, USN.

SPASUR Tracks Satellites

A new system designed to detect and track past, present and future positions of all space satellites has been put into operation by the Navy.

Called SPASUR, the system was developed by the Naval Research Laboratory. It consists of a chain of six radio stations in the southern half of the U.S., plus an Operations



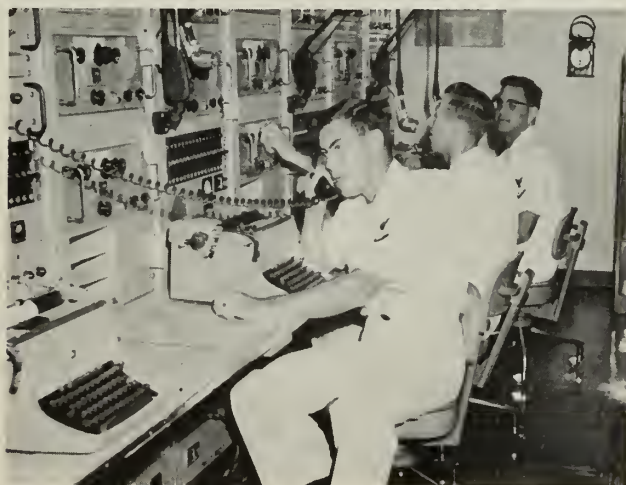
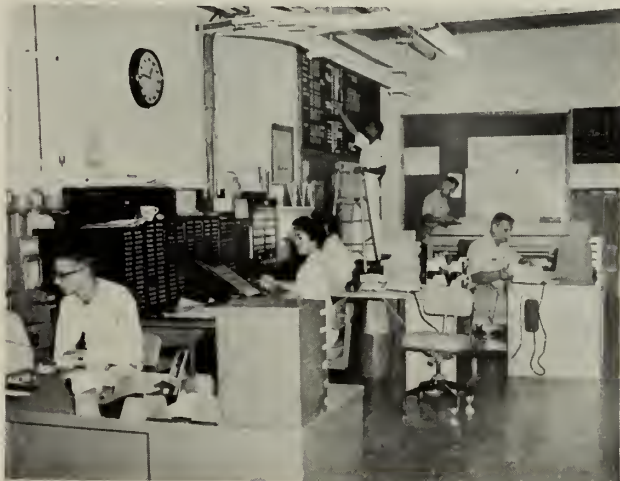
S.O.S.—LT. P. S. Swanson and J. C. Walraven, QM1, plot location of ship sending call for help to SAR center.

Center at Dahlgren, Va. Transmitters are located at Jordan Lake, Ala., and Gila River, Ariz., while receivers are at Ft. Stewart, Ga., Silver Lake, Miss., Brown Field, Calif., and Elephant Butte, N.M.

Here's how the system works: The transmitters send out a continuous wave of radio energy—when a satellite enters the transmitter antenna pattern it also enters the pattern of the receivers, which pick up reflected energy from the satellite.

Data from all four receiving stations is funneled into the Dahlgren Operations Center at the same instant the satellite passes through the antenna pattern. Currently this data is being read visually, interpreted, and fed into computers for orbit determination and predictions.

ON THE ALERT—Hawaiian Sea Frontier's search and rescue center stands by. Rt: Center's radio shack relays message.





SAVED—Two survivors (foreground) are hoisted aboard USS Coral Sea (CVA 43) after being rescued from small boat in trouble 17 miles off Santa Catalina.

Open House in Morocco

White-bearded Moroccan tribesmen in burnouses and turbans, their women in djallabas and veils and carrying infants slung on their backs, and trainloads of wide-eyed French and Moroccan school children—more than 5000 citizens of that country altogether — streamed through the gates of the U.S. Naval Air Station, Port Lyautey when that activity held Open House recently.

They were there to celebrate Friendship Day, which was held in conjunction with "American Day" at the International Casablanca Trade Fair.

It was a display of friendship and good neighborliness from a country which not long ago abounded in the "Yankee go home" attitude. U.S. friendship, to Moroccans, has become a real and living fact. It hasn't been developed through sterile programs or empty, meaningless phrases. Instead, friendship has been demonstrated to them in the best possible way — on-the-spot action when it was needed — and in dynamic fashion.

After all, to a drowning Moroccan in the flooded Sebou River Valley a couple of years back, the U.S. Navy helicopter which plucked him from the jaws of death was a very tangible helping hand — and he didn't pause to look over its markings, or to speculate on the nationality and politics of the pilot.

Similarly, when thousands of Moroccans fell victims to a disastrous

earthquake this past spring, there was no quibbling as to whether Americans overseas are popular or not. All Agadir's suffering survivors remember U.S. doctors and nurses, and hundreds of faceless, anonymous U.S. servicemen beside them in their darkest hour, working 'round the clock to help rescue the wounded, feed the hungry, clothe the naked, and house the homeless. (ALL HANDS, June 1960.)

Visitors to the open house were welcomed by banners in Arabic, French and English. Some highlights were hourly demonstrations of helicopter rescue techniques and firefighting and tours through naval aircraft.

A crowd favorite was a large picture display, entitled "Friendship in Action," which illustrated Navy participation in the Agadir operations.

Equally popular, especially with the children, was a Science Fair exhibit set up by the base high school. Ben Hasnaoui, once a member of the local orphanage now living with an American family, and a 10th grade student at the school, kept a group of Moroccan orphans spellbound with an impromptu science lesson.

Another extremely popular, though unofficial, exhibit proved to be the vending truck selling American style hot dogs and soft drinks. Sailors and Marines passed out candy to the children, assisted visitors on and off aircraft, demonstrated equipment and acted as guides.

Visit to Acapulco

Crew members of the escort vessel *uss Charles Berry* (DE 1035) turned the People-to-People program into a "person-to-person" get-together when their ship paid a short visit to Acapulco, Mexico, earlier this year.

Liberty-bound Navymen searched out their civilian counterparts in the city and extended invitations to visit the ship. The hospital corpsman, for instance, visited the local hospital, the ship's librarian called at the Acapulco Library, and the Shore Patrol was host to the chief of police.

Fishing enthusiasts invited charter boat captains aboard. Acapulco's mayor and other local officials were guests of *Berry's* skipper. *Berry's* two motor whaleboats were on the go the entire two days, ferrying visitors to and from the ship.

Acapulco demonstrated its appreciation of such friendly tactics by dedicating an entire show at its famous Ski Club to the Navy. Later, as *Berry* was standing out of the harbor, some of the club's more beauteous members skied their way out to the ship and circled it in a farewell salute.

Four More Nuclear Subs

The Navy has awarded contracts for four more nuclear powered attack type submarines.

These new subs will be the same as *uss Thresher*, SS(N) 593. They will be blimp-shaped, have over-all length of 274 feet and displace 3250 tons.

Chindonya Band

The cacaphony of a Japanese Chindonya Band, with its shrill flutes and clanging chimes, thumping drums and many-colored costumes, is designed to attract attention—and it does.

The Chindonya is a Japanese version of the American town crier or the strolling sandwich man with the big "Eat at Joe's" sign. Now U. S. Fleet Activities, Yokosuka, Japan, boasts a Chindonya Band composed entirely of Americans, which is livening up the teatime conversation of everyone within earshot.

It all started in 1958, when Richard R. Stevens, a member of the Clown Corps of the Yokosuka Shriners Association, organized a group to entertain at orphanages. To add local color to the act he decided to form a Chindonya Band.



ON THE AIR—CinCPacFLT's radio officer LTJG L. D. Adams mans the mike during the production of a show.

These bands have been around since the Tokugawa era (1600-1868), when they were organized to help ballyhoo Kabuki plays appearing at local theaters. They turned out to be such an ideal way to advertise that they are used nowadays to plug everything from department store bargain days to the opening of new super highways.

The American Chindonya Band received so many requests for personal appearances when it was getting started that the group asked Gensaku Inaga, an expert on Chindonya music, to help give the band a professional touch. The musicians practiced for a year. They bought their costumes from Tokyo stores, and made most of their own instruments.

Two clarinet players were added to give the outfit an extra sound.

Since 1958 the band has appeared at special events in Yokohama, at numerous orphanages in the Yokosuka area and even in a broadcast on a major Japanese television network. When the group was on TV, Minato Eikichi, mayor of Toyama, Japan, saw it and invited the band members to be his guests during the Toyama Cherry Blossom Festival.

At the festival, which celebrated the 100th year of diplomatic relations between the United States and Japan, the band participated in a parade and appeared in a music program at the local civic center.—Michael W. Donnelly, PN2, USN.

Across the Blue Pacific

"Aloha from the paradise of the Pacific—Hawaii—as we bring you another 15 minutes of lilting Hawaiian music and a story about the U.S. Navy."

These words open the Pacific Fleet's radio program, "Across the Blue Pacific," produced at the Pearl Harbor headquarters of the Commander in Chief, U.S. Pacific Fleet.

Four Navy enlisted journalists produce the show under the direction of LTJG Lyndon D. Adams. They write the scripts, provide sound effects, act, direct, and tape-record the show.

Kenneth O. Hightower, JO3, who holds a first class radio-telephone license, is the chief engineer. Octavio Marquez and Charles Brown, both JO2s, and William Steck, JOSN, are script writers.

Visiting Hollywood celebrities help to add sparkle to their shows. When a big name star is in town,



RECORDING—J. Bartley, YN2, (rt.) records voice animation with C. Brown, JO2, at Pacific Fleet radio station.

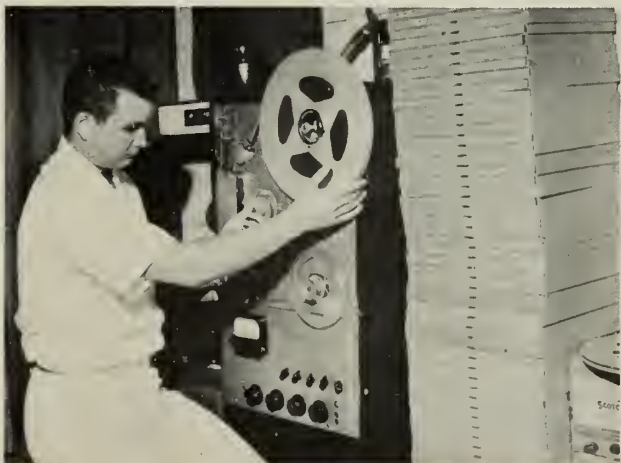
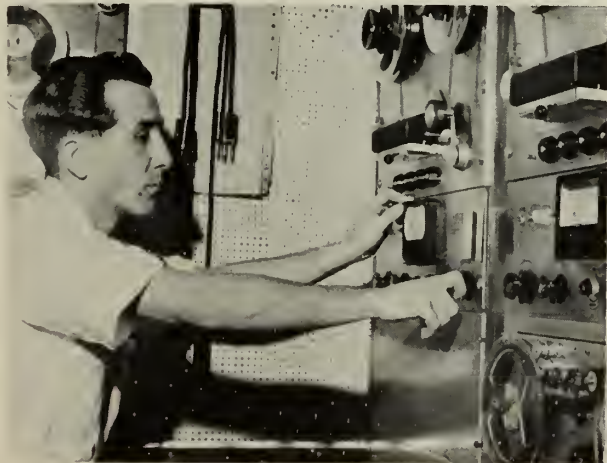
the show's officer in charge puts in a pitch for "Across the Blue Pacific."

Film stars such as Gregory Peck, Robert Mitchum, Robert Cummings, Fred MacMurray, Anne Baxter, Dorothy Lamour, Bonita Granville, Ann Rutherford and Alexis Smith—to mention a few—have appeared on the program.

The Pacific Fleet's venture into radio began in 1948 when four wire recorders were assembled for a home-town radio interview program. Later that same year rack-mounted tape recorders, phonograph turntables, microphones and a disc cutter were picked up from a discontinued Army radio unit.

In 1951 a recording studio was built with facilities to produce a professional-type radio show.

PACFLT RADIO—K. O. Hightowers, JO3, handles controls during program recording. Rt: B. Steck, JOSN, transfers tape.



There's RUM in Davy Jones' Locker

What won't these underseas research people think of next?

From now on they're going to sit high and dry on the beach, and let a newly developed, almost human robot device do their work for them.

The latest scientific pride and joy of oceanographic research can crawl along the ocean floor while it sees through four television eyes. It has one 15-foot long arm, complete with elbow and wrist joints. When fully developed it will be able to swim, rise, descend or hover. It's officially known as the Remote Underwater Manipulator, and, naturally, is called RUM for short.

Briefly, it is a mechanical means of extending human work capabilities into extreme depths. Man hasn't, as yet, devised a way to reach such depths except inside some form of diving bell or bathyscaph. And, when you're sitting under 20,000 feet of water, you just don't open a window and begin leisurely picking up samples of ocean floor vegetation. Hence RUM.

RUM was developed at the Marine Physical Laboratory, a Navy-supported research group within the University of California's Scripps Institute of Oceanography. Many of its features—mechanical manipulator, television system, vertical lift appendage, etc.—were developed and built by cooperating commercial companies.

The vehicle itself consists of the basic hull and truck assembly of an *Ontos* tank (a type of self-propelled rifle used by the Marine Corps). The interior of the tank's hull is sealed and filled with oil to permit operation at great depths. Two standard seven-and-a-half horsepower motors operate completely immersed in oil. Coupled through standard truck transmissions and differentials, they drive the vehicle's two tracks.

Power is furnished by a mobile van, which can be driven right up to the water's edge. RUM can then be played out as far as five miles, attached to a coaxial cable. This cable not only transmits operating power to the vehicle, but for the cameras and mercury vapor lights as well, plus carrying the television signal and providing several remote control telemetering channels.

Once out in the depths, RUM can operate at depths of at least 20,000

feet, at up to three miles an hour where the bottom is more or less level. It can maneuver and operate on grades of as much as 60 per cent, and is capable of climbing over obstacles up to a foot high. The vertical lift appendage now in the design stage is a brand new wrinkle, and its addition will give RUM much more maneuverability. The system, basically, embodies three large rotor blades, driven by electric motors. Operated in somewhat the same fashion as the helicopter, these rotors will make it possible for the vehicle to move up, down or laterally in any direction in the water. Guidance and control during this phase will be accomplished through a narrow band-width radio frequency.

Four television cameras housed in RUM provide human operators in the van with 'eyes' to search the ocean depths. Protected by half-inch steel casing, these miniature cameras are only three inches in diameter, and but 14 inches long. A conical lucite window is sealed across the front of the casing to protect the vidicon tube. Two cameras, slung on RUM's stern, peer intently at the ocean floor, while the other two monitor the gyrations of the mechanical arm. The system can transmit both two- and three-dimensional views. Orange filters on monitor screens in the van help produce clear, stable pictures.

The manipulator 'arm' is quite a deal. A modified version of the device used to handle hot stuff in atomic laboratories, it is boom-mounted, has a two-pronged hand that opens and closes, a wrist that rotates in either direction, an elbow that pivots, and a shoulder that both pivots and rotates. Supported by the boom, it can be extended 15 feet in any direction, and, controlled from a console in the van, it can be made to perform a variety of tasks.

The floors of the world's vast oceans are one of the two unexplored frontiers left to man. Outer space, of course, is the other. People who should know tell us it's imperative that we learn much more than we know now about both mediums, and quickly. Our oceanographic researchers are hard at work in their bailiwick doing just that—and RUM figures to have a large, mechanical hand in the process.

Topeka Has Debut with Terrier

The *Terrier*-equipped *uss Topeka* (CLG 8) has rejoined the U.S. Fleet, after preparing for her second Navy debut for some three years.

On 15 Apr 1957, *Topeka* entered the New York Naval Shipyard and placed herself at the mercy of the shipyard technicians. But she wasn't there for a mere beauty treatment. A middle-aged lady, she needed to get hep with the modern Navy.

As in any major modernization, the first step was to strip the ship of old, unneeded furnishings and fittings. By December the stripping was over and the reconstruction had begun. Literally thousands of shipyard workers—from planning and design personnel to welders and riggers—went into action. Early in 1958 the ship was put into drydock for work on the lower part of her hull.

The spring of 1959 saw more progress being made. Many of the ship's offices and shops were already nearing completion, and the ship's boilers were successfully lit off and tested.

During dock trials in September, the ship's propulsion plant was tested, and then the ship was again drydocked for final underwater-hull preservation.

She had taken on a new look by January 1960, and was almost ready for sea. On March 26, *uss Topeka* (CLG 8) was commissioned, and in June she joined the Fleet.

She can carry enough food for 90 days; and if she cruises at 12 knots—top speed is over 30—she can travel more than 13,000 miles without refueling.

Her electronic equipment includes 44 radio receivers, 19 radio transmitters, eight radar sets, 18 radar scopes and over 9000 electron tubes.

Also aboard are vehicles for land, sea and air travel. One sedan, six boats, one carryall and 93 inflatable life rafts are carried in the new CLG.

Probably the most noteworthy part of the ship is her dual-launcher for *Terrier* missiles.

Terrier is a surface-to-air missile and is the ship's principal defense against air attack. The two-stage rocket is hurled to supersonic speed by a booster stage, and then the speed is maintained by the sustainer rocket stage. The actual flight is controlled by a directional radar beam, and the two radars aboard enable the ship to engage several air targets at one time.



U.S. NAVAL EXAMINING Center is the central control point for preparation, distribution and scoring of exams.

The Question Men

THE NAVY'S ADVANCEMENT SYSTEM is designed to give equal opportunity to all Navy men and women, and to advance them as rapidly as possible to meet the needs of the service. Although the Chief of Naval Personnel is charged with the administration of the Navy's advancement system, there's a single command which plays a paramount role in the promotion picture of all naval personnel.

And that activity is the U.S. Naval Examining Center.

Discussions throughout the Fleet run hot and heavy about this activity, but few Navy men actually know how it operates.

Visit the Examining Center and see just what's what.

You'll find NEC housed in a mod-

ernistic, wood and glass paneled building located in the heart of the farm belt—some 1000 miles from the nearest ocean. It has been located at its present site on Green Bay Road within the Great Lakes Naval Training Center since 1951, following its move from Norfolk, Va., where it originally went into business.

The Examining Center was established by the Chief of Naval Personnel in 1949 in an effort to standardize the Navy's testing procedures. Before that time, local commands were responsible for the preparation, administration and scoring of advancement exams for personnel assigned to their units.

The move to Great Lakes was made due to space limitations at Norfolk, and to facilitate centralized printing and distribution.

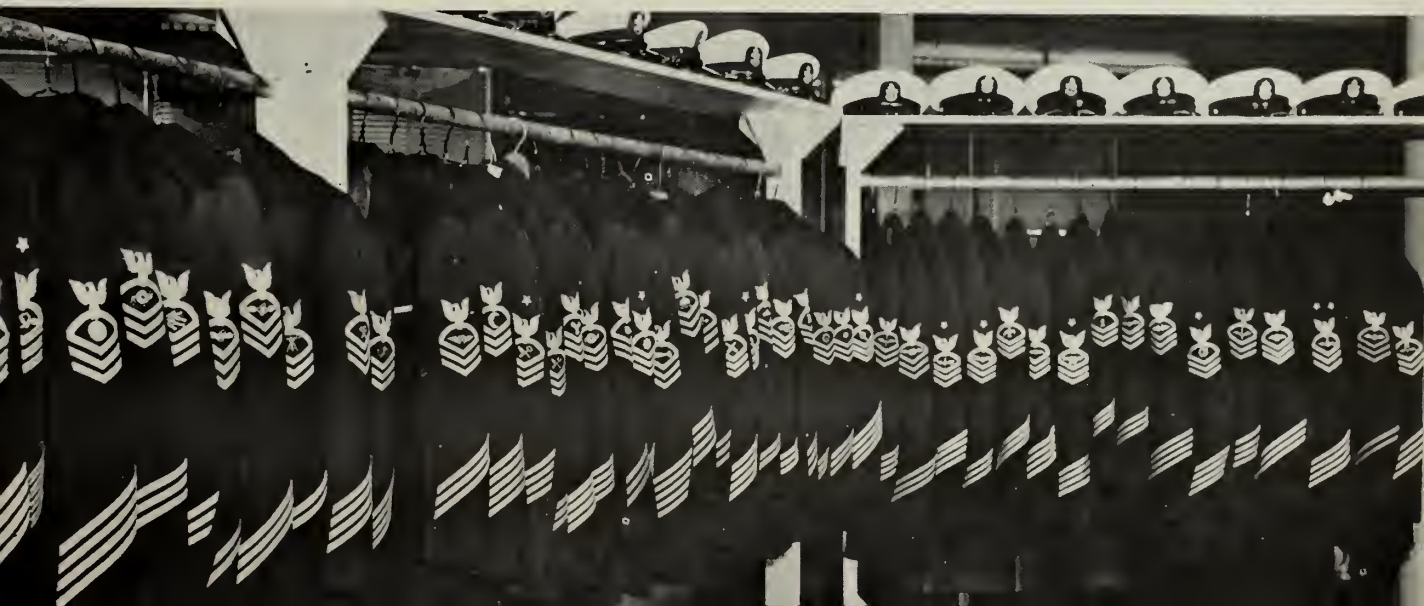
NEC began its operation with the aim of standardizing all examinations for enlisted personnel in order to afford them equal opportunities to compete for advancement with all others in their respective rating and rates.

As an example, a Navyman serving aboard a destroyer with the U.S. Seventh Fleet in the Far East would take the same examination on the same day as his counterpart serving with the U.S. Sixth Fleet in the Mediterranean.

The present mission of the Naval Examining Center includes:

- To prepare, distribute and score advancement and proficiency pay examinations for enlisted personnel of the Regular Navy and of the Naval Reserve as directed by the Chief of Naval Personnel.

KNOWLEDGE POOL—Hash marks and rating badges signify the experience and versatility of examination writers.



• To prepare, distribute and score such special examinations for officers, warrant officers, and enlisted personnel of the Regular Navy and Naval Reserve as directed by the Chief of Naval Personnel.

The growth and progress of the Naval Examining Center during the past 10 years has paralleled that of the rest of the Navy as it crossed the threshold into the era characterized by atomic submarines, guided missiles, nuclear weapons and other technical advancements.

From its small beginning, the Center has expanded to the point where it now bears the distinction of being the world's largest facility of its kind. NEC also serves as a prototype for other branches of the Armed Forces and Allied Navies throughout the world that are interested in adopting the U.S. Navy's advancement system.

Today's highly technical Navy continues to place increased demands upon the Examining Center. The increasing technical content of many ratings places greater professional responsibilities upon the individual enlisted man as he seeks advancement.

An 800 per cent growth in the publication of examination booklets since 1950 typifies this expansion. This increased output also reflects many improvements resulting from constant research in education and testing techniques.

ALTHOUGH THE END PRODUCT may be expressed simply in the word "exam," examination writing, processing and scoring include numerous intricate job steps.

What are the requisites of a "good" examination?

Continuous study of subject matter, specialization in a combination of creative writing and the techniques of educational research, knowledge of the Naval establishment and its rating structure—these are some of the basic requirements.

To accomplish this, both military and civilian personnel are assigned to NEC. All must meet exacting qualifications. Officers are chosen by the Bureau of Naval Personnel on the basis of their academic and professional backgrounds. Those who possess a technical and operational specialty, post graduate work, and instructor duty experience are particularly sought.

Civilian research psychologists, educational specialists and statisticians must have an advanced education combined with appropriate professional background and knowledge of subject matter in occupations of the Navy today.

Only Chief Petty Officers of the highest caliber are ordered to the Exam Center for duty as item writers. This is because the Navy feels that CPOs who excel in their respective ratings are best qualified to write the examinations within their own fields.

Probably without exception, no other organization in the world has such diversified skills, talents and experience as those possessed by NEC item writers. Some 1500 years of combined military and professional experience are available through the combined abilities of the military and civilian personnel assigned to the Examining Center.

NEC has prepared many different types of test instruments such as selection examinations, qualifying promotion examinations and compet-

itive advancement exams which cover a wide range of subject matter from baking bread to the control and direction of nuclear weapons and guided missiles.

THE CENTER'S RESPONSIBILITY is to design and construct each exam so that it will serve the purpose for which it is intended. Another responsibility, and one which all Center personnel take most seriously, is to insure each examinee fair treatment. To this end, *particular emphasis is put on clarity, avoidance of trick questions, and authenticity of the subject matter being covered.*

All processing of examination returns, which for the most part is accomplished by machines, is done in an impersonal and impartial manner. Each candidate can be assured that his examination is handled honestly and fairly.

The actual writing of the exams is but one phase in the over-all production and processing of examinations for Navymen throughout the world. A vast amount of time, effort and administrative action goes into the accomplishment of NEC's mission. One of the Center's most essential and busy sections is the Examination Processing Department that has the task of record-keeping, machine scoring and shipping the exams. Responsibility of this department begins in supervising the printing of the exams at the 9th Naval District Publications and Printing Office and ends with the publication of the rating advancement letters.

The supervision of printing demands careful security measures, including serialization checks on the classification of the exams. They are classified in three categories: For

CAN DO EXAM—Chiefs in construction ratings use experience and skill to prepare exams for fellow Seabees.



EACH YEAR in February, May, August and November, the Center is involved in a large shipping operation. During each of these months about 3000 individual shipments of examination booklets and necessary documents are sent out to ships and stations throughout the world.

By using large storage vaults and aided by exacting shipping lists, the Shipping Division is able to maintain the security control required to handle large amounts of test material. Further assisted by addressograph, sealing and strapping equipment, this division has the capacity to mail 225,000 enlisted examinations in a six-week period.

In turn, ships and shore commands forward information to the Examining Center on their candidates so that data may be "pre-punched" or, in other words, organized for scoring, in advance of receiving the final examination returns. Besides this routine correspondence, discrepancies might be checked and exceptional cases considered. These are but a few of the highlights involved in the workload of processing *more than a million examinations* each year.

The Center uses 150 multiple choice questions in enlisted advancement and proficiency pay examinations. Examinations for officer promotion qualifications, selection of candidates for various officer programs and other special examinations vary in type and number of questions used.

THE PREPARATION of a single question, called an "item," requires a definite series of refinements such as subject matter research, writing, selection, administration, scoring, analyzing and evaluation. Annually over 225,000 items are subjected to these techniques.

Using basically the same techniques of examination development, the Advanced Programs Department prepares and scores exams for the senior enlisted rates (E-8 and E-9); and the two optional examinations allowed officers in the fields of Logistics and Strategy and Tactics, under provisions of the officer promotion study plan requirements.

All phases of the Center's operation are continually reviewed in an effort to improve procedures. One of



IN AND OUT—NEC's Shipping Division keeps the mail coming and going.

the more recent major developments included the installation of a digital computer system. The computer provides the Machine Processing Division with rapid means of listing, scoring and computing the large volume of examination material.

Because of this electronic system, all candidates are now required to punch their examination answers on specially prepared answer cards. When returned to the Examining Center these score cards are machine processed at the rate of about 50 per minute. This, combined with other equipment such as "sorters," "collators" and "tabulators" substantially reduces the time involved in

publishing the examination results.

After each examination has been analyzed, the results are turned over to the Educational Specialists and other individuals who use this information to improve future exams.

With the feedback of statistical information to the educational specialists, the examination cycle is completed. As one cycle ends, work immediately begins on a new series of examinations. It's a long, tough job. So—the next time you take an examination for advancement, remember it's the fairest kind of test that could have been developed, and remember also that it was prepared with *your* best interests in mind.

WHAT'S THE SCORE—Machine accountants process punched exam cards.



THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

• CHANGES TO UNIFORM REGS —

Here is a roundup of the latest changes to U.S. Navy Uniform Regulations, as approved by the Secretary of the Navy:

Officers, chief petty officers and Waves are now authorized to wear a white plastic-coated cap cover. It simulates the appearance of the white cotton cap cover, and is optional unless the white cotton cover is prescribed. (Arts. 0112.1, 0213.1, 0612.1 and 0811.1)

Navymen are now authorized to wear a plain white protective helmet, without insignia or ornamentation, while operating or riding as a passenger on any two-wheel motor vehicle. (Art. 1146)

A change for enlisted men authorizes the wearing of all distinguishing marks for which they are qualified, except any mark representing a qualification that is incorporated in the requirements for another mark for which they are qualified. These marks must be worn on the right sleeve of uniform coats and jumpers, joined in a vertical line midway between shoulder and elbow. When the Navy "E" is awarded to anyone who is authorized to wear other marks, the "E" must be worn one inch below the other mark or marks. (Arts. 0653.2, 0766.1 and 0866.1)

A new specialty mark is authorized for wear by those Navymen who will hold the new general rating of postal clerk. The specialty is a representation of a postal cancellation stamp. (Art. 0652.2)

The changes also affect Naval Academy midshipmen, authorizing the wearing of certain uniforms cor-

responding to those of commissioned officers (the tropical khaki long uniform and dinner dress white jacket uniform). Another change authorizes wearing of the eagle-anchor collar insignia on both collar points by all midshipmen, first class, of other than officer rank. (Arts. 0322, 0323, 0326, 0353, 0356 and 1112)

A change in officer regulations authorizes optional types of formal white dress shirts. (Art. 0134.1.b)

For women officers, a new change prescribes the wearing of gold grade sleeve stripes and sleeve devices on white uniform coats, instead of stripes and devices now worn. Use of both types will be optional until 1 Jan 1961. (Arts. 0231.2.a, 0252, and 0253.1)

• **NO COMMERCIALS** — Navymen had better steer clear of advertisements and such which could be taken for Navy endorsements of particular brands, products, or enterprises.

According to BuPers Notice 1000 of 12 May 1960 there are provisions in both the *BuPers Manual* and *Navy Regs* prohibiting officers and enlisted men on active duty from using their military titles in connection with any commercial enterprise.

To make sure everyone on active duty is aware of these restrictions, the notice calls on commanding officers to caution their personnel about the importance of avoiding situations which would expose them and the Navy to commercialization arising out of the use of their names and/or official positions in a manner sug-

gestive of endorsement or promotion of a particular commercial enterprise.

The notice was issued as a result of violations of the regulations.

• **REVISIONS** in the *Bureau of Naval Personnel Manual, 1959*, touching on subjects which range from parachute jumping to reenlistment have been made under Change Number Two to that publication. The revisions are designed to:

Clarify entitlement to reimbursement for shore patrol expenses.

Amplify the instructions for reenlistment under continuous service conditions.

Authorize the assignment of certain well qualified hospital corpsmen second class to independent duty billets.

Clarify procedures connected with the detail of officers to duty involving parachute jumping and for designation as parachutists.

Alter the regulations governing the training of aircrewmembers.

Clarify the instructions to be given upon separation to personnel with a six-year obligation.

Provide for the delivery of letters of appreciation to enlisted personnel being separated.

Clarify the instructions for transferring personnel for separation.

Revise the instructions concerning separation for hardship reasons.

Provide for the separation of enlisted personnel who have extended their active obligated service for the express purpose of participating in and completing a cruise.

Require the waiving of pension, disability compensation or retired pay by Reservists on active duty or training duty to prevent their drawing double compensation.

Incorporate, in the manual, instructions for maintaining the records of inactive Reservists residing



REMEMBER THE COUNT-DOWN ON ALL HANDS is -9-8-7-6-5-4-3-2-1 . . . share it with shipmates who are waiting.

or traveling in the Eastern Atlantic and Mediterranean area.

Besides these revisions, Change Two includes a number of pen-and-ink corrections and a list of the articles in the Manual which have been modified or held in abeyance by SecNav and BuPers directives.

• **SEAVEY SEGMENT III** — Sea duty cut-off dates for personnel in Seavey Segment 3-60 (Rating Groups IX, X and XI) were announced in BuPers Notice 1306 of 18 May 1960.

Eligible personnel in Segment 3-60 filled out their rotation data cards last month. The first set of orders will be issued in October 1960 for transfer in February 1961. Orders under Segment 3-60 will be issued monthly thereafter until September 1961.

Personnel in the Aviation Guided Missileman rating—which was disestablished on 1 Jul 1960—will convert to the AT and AQ ratings and will be ordered ashore in accordance with the sea duty cut-off dates established for those ratings.

Here are the cut-off dates for personnel in Seavey Segment 3-60:

ADC, 1, 2	Dec 58
AD3, AN	Dec 59
ATC, 1	Dec 58
AT2, 3, AN	Sep 59
ALC, 1	Dec 58
AL2, 3, AN	Sep 59
AOC, 1, 2, 3, AN	Dec 58
AQC, 1, 2	Dec 58
AQ3, AN	Sep 59
ACC, 1, 2, 3, AN	Dec 58
ABC	Dec 58
AB1, 2, 3, AN	Jun 58
AEC, 1	Dec 58
AE2	Jun 59
AE3, AN	Dec 59
AMC, 1	Dec 58
AM2, 3, AN	Jun 59
PRC, 1	Dec 58
PR2, 3, AN	Mar 59
AG1, 2	Dec 58
AG3, AN	Jun 59
AKC, 1	Dec 58
AK2	Jun 59
AK3, AN	Dec 59
PHC, 1	Sep 58
PH2	Mar 59
PH3, AN	Dec 59
PTC, 1, 2, 3, AN	Dec 58
HMC, 1, 2	Dec 58
HM3, HN	Jun 59
DTC, 1, 2	Dec 58
DT3, DN	Jun 59

• **VA FORM NEEDED** — Are you sure you have the proper beneficiary listed in the VA Files for your USGLI or NSLI policy?

Before saying, "Oh, sure," think a

minute. Maybe you thought about changing the beneficiary or method of settlement and then forgot to notify the VA. It can happen. And it does.

The VA, in fact, is concerned over recent cases where, apparently the wrong person has received the benefits from a serviceman's life insurance policy.

In one example, the VA reports, a serviceman who took out his policy in the early '40s listed his parents as beneficiaries. Later, he was married and raised a family of three children. In the meantime, his parents were divorced. The serviceman apparently forgot about his beneficiary provision, because when he died his family was deprived of the insurance benefits with the money going to his parents.

The correct procedure for advising the VA of a change in beneficiary is to file a VA Form 9-336. This form carries the lengthy title, "Change or Designation of Beneficiary and/or Change or Selection of Optional Settlement."

Check your insurance policy and make sure you have the proper beneficiary listed. If not, file a VA Form 9-336 and make the change. Your Insurance Officer should have a supply of these forms.

• **"YOUR PERSONAL AFFAIRS"** is the title of a new pamphlet that has been released by the Department of Defense and is being made available to all military personnel.

This booklet stresses the importance of having an up-to-date record of vital personal and family documents and papers and letting other family members know its contents and location.

This DOD pamphlet (DOD Pam 6-15 or NAVPERS 15900A) is designed to provide general information about matters affecting your personal affairs. It is not intended—nor should it be considered—to be a complete explanation of the various laws and regulations discussed.

It briefly explains the purpose of a will, a power of attorney, joint bank account, a safe deposit box, and points out that military legal assistance officers can advise and help military personnel in a wide range of personal matters.

Details about dependents' survival benefits provided by the Armed Forces, Veterans Administration and Social Security are also included.

HERE'S YOUR NAVY

Striking Fleet Atlantic, a sea-going command with headquarters aboard the tactical command ship USS Northampton (CLC 1), was activated in November 1952 to provide an integrated naval force under the previously established Supreme Allied Command in the Atlantic. Commander Second Fleet was designated commander of the new organization.

Created through agreement and co-operation of member nations of the North Atlantic Treaty Organization (NATO), this new fighting arm was tailored to meet specific wartime needs of NATO and National commanders in containing an aggressor if he should strike by land, sea or air.

A balanced force of combatant and non-combatant ships, in which the fast carrier task force is the fighting core, SFA helps extend NATO's concept of offensive and defensive naval operations geared to support the missions of friendly sea and land-based air power.

Exercise Mainbrace in 1952 and exercise Mariner in 1953 were staged by the Striking Fleet to provide the integrated forces with experience in



operating together, and to improve co-operation and communication between the various participating commands. In addition these exercises afforded realistic combat conditions, during which the surface, sub-surface and air units involved sharpened their techniques and capabilities. Later, in 1957, another coordinated NATO exercise, Strikeback, concentrated the greatest number of warships ever assembled under a NATO commander.

Since its establishment Striking Fleet Atlantic has been commanded successively by: Admiral (then VADM) Felix B. Stump, VADM Thomas S. Combs, ADM (then VADM) Edmund T. Wooldridge, VADM Charles J. Wellborn, Jr., VADM Robert B. Pirie, VADM Bernard L. Austin, and VADM W. R. Smedberg, III. Its current commander is VADM Harold T. Deutermann.

Today, through unity and continued progress, Striking Fleet Atlantic contains sufficient power to permit NATO commanders to conduct operations consistent with the security requirements of all member nations.

THE BULLETIN BOARD

Puzzled about Pro Pay? This Should Help Straighten You Out

EVER SINCE PROFICIENCY PAY was conceived back in 1958, and again, again and again as each new list of pro pay awards is announced, comments—both pro and con—have run hot and heavy throughout the Fleet.

Here are excerpts from some of the letters that have been received about pro pay and the replies to them. Perhaps this question-and-answer-type presentation will resolve some of the existing uncertainties in your mind about pro pay.

To begin, we'll take a letter from a Senior Chief Aviation Electronics Technician. His ideas about pro pay are similar to many repeated throughout the Fleet. He says: "... The instructions concerning pro pay state that it is slated mainly for career personnel. If this is the case, why can't an E-8 or E-9 draw pro pay? I certainly believe that a senior or master chief should definitely be considered as career personnel."

The original law authorizing pro pay, the DOD instruction and the latest BuPers Notice on this subject (1430 of 2 Feb 1960) explain the intent of pro pay. Pro pay can be described as "career incentive pay"—additional compensation that will help retain beyond one enlistment, qualified personnel in the critical ratings.

Under a recent revision of the Navy's pro pay regulations, career personnel who pass the pro pay exams are the first in line to receive pro pay. Then, if there are any remaining allocations, they will go to the non-career men who pass the pro pay examinations.

For proficiency pay purposes, career personnel are defined as those who have served, or are obligated to serve seven years' active duty. In other words, this means that persons in the lower pay grades who have reenlisted, extended or have agreed to extend or reenlist will be given first crack at pro pay.

Senior and master chief petty officers are, of course, considered to be career personnel. But, as you can see by the original intent of pro pay,

All-Navy Cartoon Contest
L. E. Crutchfield, AKAN, USN



it was never intended for the two senior grades. Pro pay serves as an added incentive for lower rated personnel in the critical ratings to follow in the foot steps of the E-8s and E-9s.

To go into a little more detail, 70 per cent of all pro pay authorized must go to second and third class petty officers in the critical ratings; 15 per cent to those in pay grades E-6 and E-7 in the critical ratings, and the remaining 15 per cent to recruiters and personnel of all pay

All-Navy Cartoon Contest
W. R. Maul, CT1, USN



"But I've found that by adding, ever so gently, a delicate dash of paprika, just before the souffle starts to brown you achieve a heavenly. . . ."

grades in the "outstanding effectiveness," or non-critical, ratings.

Thus, 85 per cent of all pro pay goes to personnel in the critical ratings. For purposes of pro pay, critical ratings are those which require long periods of specialized schooling or in-service training; require special technical or leadership aptitudes; have low first-term reenlistment rates; and have a relative shortage of career petty officers.

A CTC says: "I don't see how it is possible to state certain ratings are more critical than others and thus should be given opportunities to draw extra pay without advancement. Each rating has been set up to perform a vital function of the Navy. Without competent personnel in each of them, efficiency of any ship or station suffers."

No argument there at all. All ratings do perform a vital function in the Navy. Proficiency pay, however, was established so that the services could more equitably compete with industry for highly skilled technicians. You must agree that some ratings are more technical than others and they rightly deserve the extra compensation afforded them through pro pay as an incentive to remain on active duty.

The idea of this incentive pay concept for personnel in highly critical fields is not new in the armed forces. For a number of years now the Navy, as well as all of the other services, have paid physicians and dentists special incentive pay ranging from \$100 to \$250 per month so long as they remain on active duty.

The reasoning behind pro pay for enlisted men is basically the same as this special incentive pay for doctors and dentists—simply to keep technical and highly trained personnel on active duty.

"It has been said that pro pay will hold critical skills in the Navy. I don't believe this to be true. Should there be a low reenlistment percentage of electronics technicians, for example, the few extra dollars realized in pro pay will not encourage a man to choose a Navy career as op-

posed to civilian employment. It would take many times the amount realized in pro pay to meet this objective. Furthermore, it seems that pro pay has created an air of frustration as to the soundness or permanence of the Navy rating structure. In choosing a career, a person must consider the soundness and lasting qualities of it. Right now, the rating structure appears very unstable with no one knowing what the future might bring."

It has not been claimed that proficiency pay will hold personnel in the Navy. However, it is hoped that it will increase the first term reenlistment rate.

The over-all first term reenlistment rate (for all ratings) in 1958 when pro pay was authorized was approximately 24 per cent. For the critical ratings it was 17 per cent. It was felt that if the first term reenlistment rate for the critical ratings could be raised to 24 per cent, then pro pay would be accomplishing its purpose. Your statement that this is not happening is unsubstantiated. As yet, the Bureau has not been able to make a true estimate regarding the effect of proficiency pay upon reenlistment in the critical ratings.

Further, proficiency was originally intended, and will remain, separate from advancement. This was done so that none of the privileges of the higher grade would be extended to lower rated personnel drawing proficiency pay.

"Another objective of pro pay is to award personnel who have demonstrated outstanding effectiveness in any rate. I feel these men are usually awarded, or should be, by making their rates quickly. If a man is really proficient he will advance rapidly. I consider a promotion as a permanent type of award, one to be proud of, and be respected for. Also, it is very easy for personal feelings to enter into the choice of men demonstrating outstanding effectiveness."

Here we go again, but "making rates quickly" is limited to a very few ratings. Even some critical rates (critical insofar as proficiency pay is concerned) have limited advancements. In many ratings, even truly outstanding individuals must wait a number of years for advancement to certain pay grades.

According to a CTC, "Pro pay has damaged the prestige and respect of

the higher rated petty officers. In many instances, a man getting pro pay draws more money than a man in the next higher rate. This doesn't invite healthy relationships or respect. In addition, pro pay has caused resentment and bickering among the different ratings and men of the same rate. The Navy can't progress and meet these challenging times under such conditions."

Respect is not equated to the salary earned, but is gained by exhibiting qualities of leadership, knowledge and fairness that are above average. When a senior petty officer finds that he has not gained, or has lost, the respect of his men, he should evaluate his own performance and not seek some excuse, such as pay, to blame for his failures.

Proficiency pay is, as said earlier, an incentive pay program. It does not include the privileges of the

recognition of a higher pay grade.

A signalman writes: "I am now on sea duty and drawing pro pay. However, I have been ordered ashore for recruiting duty. If my interpretation of BuPers Inst. 1430.12A is correct, my pro pay will be canceled the day before I am transferred to recruiting duty. Am I right? If so, why?"

DOD Regulations — upon which the Navy's pro pay instructions are based — stipulate that you must continue to be proficient in your rating or else you will lose your pro pay. As a recruiter you will not be in a position to display proficiency as a signalman.

It must be pointed out that just because an individual is transferred to another billet he does not automatically lose his pro pay. An individual will lose his pro pay upon transfer only if he is assigned to a billet which does not utilize the skills of his particular rating. As an example, if a gunner's mate is assigned to short duty as a Guard Mail PO., or in your own case, an SM is assigned to recruiting duty, these men are not using the skills of their rating.

However, in your particular case, all is not lost. Pro pay is authorized for recruiters, regardless of their rating, and if you are as proficient as a recruiter as you are as a Signalman, you will be afforded the opportunity to qualify for pro pay as a recruiter.

"I'm an MM1 on sea duty and currently drawing pro pay. I am a qualified deep sea diver and am being ordered ashore to a diving billet. Will I continue to draw pro pay on shore duty as a diver or will it cease upon my transfer?"

As said earlier, you will continue to draw pro pay upon transfer if you are ordered to a billet where you will perform the duties of your rating. Although you are a qualified diver and are being assigned to diving duties, you will not draw pro pay unless your primary duties ashore will be within the scope of the machinist's mate rating. Pro pay is paid according to rating and not for special qualifications such as diving, EOD, UDT, etc., that are not related or do not require the skills of any particular rating.

There are also a number of questions concerning pro pay upon advancement. Here are a few examples:

An RM1, recently selected for

NOW HERE'S THIS

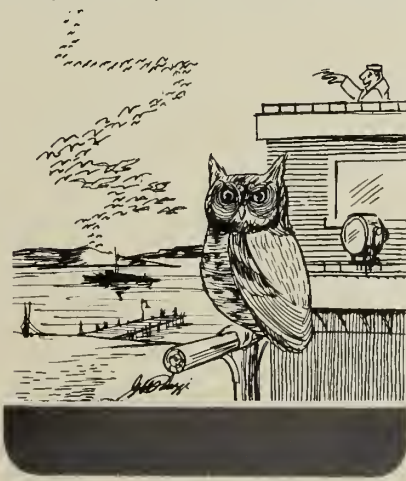
Gone Gulls

The Navy Electronics Laboratory at San Diego, Calif., has taken care of a problem that was strictly for the birds—or at least about them.

The birds were sea gulls, which created the problem by roosting on the NEL oceanographic tower. A call for help, published in the bi-weekly activity report of the Office of Naval Research facility in Pasadena, Calif., brought a response from an ONR researcher in Boston, Mass.

He suggested that plastic owls be placed on the tower to frighten the gulls away. NEL followed the suggestion, and at latest report, the gulls haven't come back yet.

Unfortunately—for those who are statistically minded—no accurate count was kept of the number of punsters who were prompted to say, "Well owl be darned."



advancement to CPO, writes: "In November 1959, I took the proficiency pay exam and as a result I began to draw P-1 pay of \$30 per month effective 16 Jan 1960.

"A few weeks later I took the E-7 exam and as a result I will be advanced to RMCA on 16 Sep 1960. Now that you have the facts, here's my question: Will I continue to draw pro pay on the basis of my RM1-P1 exam or will it be discontinued when I am advanced to CPO?"

When advanced to Chief, you will continue to draw pro pay unless you fail to requalify on the next proficiency pay examination, or, if in the opinion of your CO, you fail to maintain the required degree of proficiency. These details are spelled out in BuPers Inst. 1430.12A.

A YN1 writes: "It may be me, but many others whom I have talked to seem to share the same opinion. The present system of awarding pro pay is somewhat unfair and defeats its own purpose.

"I have always understood that pro pay was made only to extra-proficient personnel in the rate they held at the time they were examined for pro pay. If such is the case, how can a man who was just advanced be proficient in the higher grade and draw pro pay. For instance, persons who took the PO2 and PO3 proficiency pay exams last November and then were advanced to PO1 and PO2 on 16 Dec 1959 as a result of the August 1959 advancement in rating exams. These same people who were examined for pro pay as PO2s and

PO3s are now drawing pro pay as PO1s and PO2s.

"I can't quite understand how a man who has served in a higher rate for only 30 days can be considered proficient. I feel that if a person is advanced to a higher rate after taking the pro pay exam for a lower rate, he should be denied pro pay."

As said earlier, pro pay and advancement are two entirely different systems. However, you must remember that one of the eligibility requirements an individual must fulfill before he can even be recommended for advancement in rating is to demonstrate the skills and abilities, and satisfactorily perform the duties of the next higher rate. Thus, an individual must be qualified in all respects or else he wouldn't have been recommended for advancement.

BuPers Inst. 1430.12A says a man is entitled to pro pay upon advancement provided he maintains his proficiency. This policy of awarding pro pay to an individual regardless of the sequence of advancement and the effective date of pro pay award is based on the DOD pro pay instructions which say: "A member receiving proficiency pay, who is promoted in military grade, may retain his proficiency pay status until there has been an opportunity to evaluate him in relation to other personnel in his new military grade and skill level . . ."

Also in relation to advancement, a YN2-P1 writes: "We have a Senior Chief Petty Officer aboard this activity who participated in both the August 1959 examinations for advancement to E-8 and the ICC-P1 examinations in November 1959. He was advanced to ICCS on 16 December 1959 and was authorized by the NAVEXAMCEN GLAKES to draw proficiency pay as a result of the November ICC-P1 examination. However, the personnel officer and the local Navy Regional Accounts Office refuse to pay him his proficiency award. This stems from what I believe to be a series of conflicting statements. For example: BuPers. Inst. 1430.12A, paragraph 6 a, states 'Be serving in pay grades E-4 through E-7.' The chief in question was serving in pay grade E-7 at the time of the pro pay examination. Paragraph 9 (h) of this same instruction says: 'Personnel advanced to pay grade E-8 shall have proficiency

pay revoked on the day preceding the effective date of advancement' This chief was not an E-8 at the time of examination for pro pay, but he was an E-8 at the time of commencement of pro pay. Consequently, since pro pay was not in effect at the time of advancement, it could not be revoked on the day preceding the effective date of advancement. Therefore: If an E-7 is eligible for pro pay and it was not revoked upon his advancement, does it not follow that it is still in effect? And lastly, BuPers Inst. 1430.12A, paragraph 10 j (1) says: Members advanced in pay grade in the following instances are eligible: (1) Members participating for proficiency pay in present pay grade, but are advanced based on advancement examination taken prior to proficiency pay examination.

"I have read and re-read these portions of the instructions and can find no reason whatsoever for denying pro pay to this chief and I assume, many others. How about an interpretation of all this?"

Although this all may sound confusing, it is not a matter of interpretation. It is simply that all instructions specifically state that E-8 and E-9 personnel are not eligible for pro pay. Therefore, advancement to E-8 invalidates any pro pay award. The sequence of events — exam, advancement, award—have no bearing in the case of personnel selected for advancement to E-8.

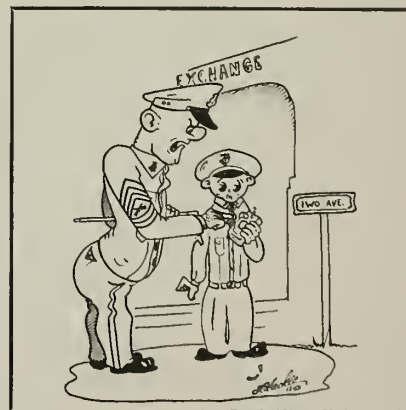
For further details on pro pay see pages 48-49 in the December 1959 issue of ALL HANDS and pages 44, 45, 46 in the March 1960 issue.

All-Navy Cartoon Contest
F. E. Cooksey, RMC(SS), USN



"How's things down in the laundry, Jones?"

All-Navy Cartoon Contest
E. J. Geisler, YN1, USN



"Private, what are you doing with a thinking man's cigarette?"

Chance to Advance Is Good in Most Rates

NOW THAT THE AUGUST ADVANCEMENT examinations are under your belt, here's an estimate of your advancement opportunities.

This estimate is based upon a BuPers study of available statistics, past performances, and a considered estimate of all the variables which might affect the number of personnel who may be advanced in November 1960 as a result of the August exams.

As is indicated by the following table advancement opportunities are best in the ratings with the most vacancies. Emergency service and service ratings, although not listed, have the same advancement opportunities as the related general service or general ratings.

Here's what the numbers in the table mean:

Code 1—Excellent. Of those passing examinations, from 70 to 100 per cent will be advanced. The greatest shortages exist in these rates.

Code 2—Good. Of those passing, from 36 to 70 per cent will be advanced.

Code 3—Fair. From 10 to 35 per cent of those passing will be advanced.

Code 4—Poor. Less than 10 per cent of those who pass will be advanced. While these rates are not closed, the Navy already has an adequate number of personnel in them.

Now, check the code for your rate.

RATING	EXAMS FOR ADVANCEMENT TO PAY GRADE			RATING	EXAMS FOR ADVANCEMENT TO PAY GRADE		
	E-4	E-5	E-6		E-4	E-5	E-6
GROUP I	CODE NO.			GROUP VII	CODE NO.		
BM	2	2	2	EN	1	1	2
QM	1	1	1	IC	1	1	1
RD	1	1	1	ML	1	1	1
SM	1	1	1	MM	2	1	1
SO	1	1	1	MR	1	1	1
GROUP II				PM	1	1	1
FT	1	1	1	SF	1	1	2
GM	2	1	1	GROUP VIII			
GS	2	1	1	BU	1	1	1
MN	1	1	1	CE	1	1	1
NW	1	1	1	CM	1	1	3
TM	1	1	1	EO	1	2	4
GROUP III				SV	1	1	1
ET	1	1	1	SW	1	1	2
GROUP IV				UT	1	1	1
IM	1	1	1	GROUP IX			
OM	1	1	1	AB	2	2	2
GROUP V				AC	1	1	2
CS	1	1	2	AD	1	3	3
CT	1	1	1	AE	2	1	1
DK	1	1	2	AG	2	1	1
JO	2	1	1	AK	2	2	2
MA	1	2	2	AM	2	1	1
PN	1	1	2	AO	1	2	2
RM	1	1	1	AQ	1	1	1
SH	3	3	4	AT	1	1	1
SK	2	1	1	PH	1	1	1
TE(RM)	-	-	1	PR	1	1	2
YN	1	1	2	PT	1	1	1
GROUP VI				TD	2	2	2
DM	1	1	1	GROUP X			
LI	1	2	2	HM	2	2	2
MU	1	1	1	GROUP XI			
GROUP VII				DT	1	2	2
BR	-	-	1	GROUP XII			
BT	1	1	2	SD	4	3	3
DC	1	2	3				
EM	1	1	1				

One of the threats of the atomic age is the possibility of conflict in the form of nuclear warfare. It is important, therefore, that each of us understands the nature of such warfare and that we are thoroughly trained in the means and methods of protecting ourselves and our ship or station.

If an attack comes, no matter where we are or what we are doing, we must be able to make the right moves and make them quickly. This is one time when it really pays to be prepared.

Try out this test with the following questions to see how much you know.



1. A nuclear explosion differs from a TNT explosion in that it is accompanied by (a) thermal radiation, (b) blast, (c) nuclear radiation, (d) shock.

2. The nuclear burst which presents the most danger to a ship is a (a) air burst, (b) underwater burst, (c) surface burst, (d) underground burst.

3. On a fairly clear day, the heat from an air burst of a one-megaton weapon will be of sufficient intensity to cause moderately severe burns as far away as (a) six miles, (b) 12 miles, (c) 18 miles, (d) 24 miles.

4. A nuclear burst whose fireball at maximum brilliance touches the land or water is called a/an (a) underwater burst, (b) air burst, (c) underground burst, (d) surface burst.

5. Radioactive contamination of the interior of a ship can be reduced by (a) wetting down all surfaces, (b) maneuvering, (c) securing all openings and ventilation systems, (d) removing all paint.

6. You may acquire an overdose of nuclear radiation by (a) not being properly dressed, (b) remaining in a radioactive area too long, (c) leaving your station, (d) helping an injured shipmate.

7. In an underwater burst, the topside of a surface ship may become contaminated owing to the (a) large water waves, (b) height of the burst, (c) heading of the ship, (d) fallout and base surge.

Check your answers on page 51.

Revised Rotation Policy Set Up for Junior Aviation Officers

In a move to improve combat readiness and at the same time reduce Navy aircraft accidents, new rotation policies and tours of duty have been established for code 13XX aviation officers and LDO officers

who have aviation designators.

After completing flight and/or other functional training, aviation officers will normally be assigned to Attack Carrier Air Group (CVG) Squadrons, Antisubmarine Warfare

Squadrons, or land-based non-ASW squadrons.

Officers assigned to CVG squadrons can expect to remain in the program (VF/VA/VAH/VAP/VCP/VFAW/VAW, etc.) for an entire four-year sea tour, modified as required for overseas tours.

A four-year tour can also be expected by officers assigned to VS, VP, ZP and HS squadrons, again modified as required by overseas tours. They may request rotation between any two of these ASW programs on a two-three year split tour. This rotation will normally take place after two years in the first assignment.

If an officer is assigned to land-based non-ASW squadrons (VW/ZW/VQ/VR/VU/HU/GMGRU/FASRON, etc.) he will be assigned a three-year tour of duty, or as modified by overseas tours. He may request rotation to either a VP, VS, or HS squadron after a minimum of two years in his first assignment. The total sea tour may not exceed five years, however.

Later tours of sea duty for officers through the grade of lieutenant commander will normally be for four years. Emphasis will continue to be on operational flying assignments during the second sea tour; however, there will be considerable split-touring to ship, staff and overseas assignments. Officers assigned to ASW and non-ASW land-based squadrons will be given an opportunity to rotate between ship-based and land-based squadrons. The third sea tour will continue to be a split-tour of two years in an operational flying assignment and two years in ship, staff, or overseas assignments.

Shore tours for officers in the grades of ensign through lieutenant commander will usually be for three years. Exceptions to this will occur in some cases for officers attending school. After one or two years of this training, however, these officers may expect to be rotated to a shore billet involving operational-type flying. In such cases the tour ashore may extend to four years. Every effort will be made to avoid assigning highly qualified and motivated aviators to combat-readiness flying billets for more than two years dur-

First Tours in Squadrons Home-Ported Overseas

LOCATION	PERSONNEL WITH DEPENDENTS	ROTATE TO	ALL OTHER PERSONNEL	ROTATE TO
Hawaii (except VW)	36	CONUS shore duty	36	CONUS shore duty
Hawaii (VW) Straight tour	36	CONUS shore duty		CONUS shore duty
Midway Rotation	18 months at Hawaii followed by 12 months at Midway (accompanied by dependents)	CONUS squadron until RAD or one year in CONUS squadron	36 12 Hawaii followed by 12 Midway	CONUS squadron until RAD or three years' sea duty
Japan	36	CONUS shore duty	36	CONUS shore duty
Okinawa	30	CVG & VP: CONUS squadron until completion appropriate sea tour ALL OTHERS: CONUS shore duty	24	CONUS squadron until RAD or completion appropriate sea tour
Philippine Islands	24	CONUS squadron until RAD or completion appropriate sea tour	24	CONUS squadron until RAD or completion appropriate sea tour
Guam	24	CONUS squadron until RAD or completion appropriate sea tour	24	CONUS squadron until RAD or completion appropriate sea tour
Argentina, Newfoundland	24	CONUS squadron until RAD or completion appropriate sea tour	18	CONUS squadron until RAD or completion appropriate sea tour
Bermuda	36	CONUS shore duty	24	CONUS squadron until RAD or completion appropriate sea tour
Guantanamo Bay, Cuba	24	CONUS squadron until RAD or completion appropriate sea tour	18	CONUS squadron until RAD or completion appropriate sea tour
Puerto Rico	36	CONUS shore duty	24	CONUS squadron until RAD or completion appropriate sea tour
United Kingdom, Spain, France	36	CONUS shore duty	36	CONUS shore duty

ing the first shore duty tour.

Officers in the grade of commander and above will continue to be rotated between sea and shore assignments as required to satisfy the needs of the service and the career needs of the individual officers.

Some aviation officers may be assigned overseas by a Naval Air Force Type Commander. For the most part, regular sea tours as prescribed for various grades also apply to units home-ported overseas. Such tours, however, will not exceed the tour length as prescribed "with dependents" for that area. Deviation from the foregoing will be made by the Chief of Naval Personnel as service needs and career interests dictate.

In some cases, officers may be extended in overseas assignments for a maximum of six months in excess of an area tour.

If an officer comes from an isolated overseas location where the tour length is two years or less, he will normally be assigned to a Fleet activity home-ported in the CONUS for two years before being rotated to shore duty.

Generally an officer will not be ordered to an isolated overseas location after spending three years in an operational squadron, unless specifically requested by the officer concerned and approved by the Chief of Naval Personnel.

Aviation officers who are first assigned to CONUS-based squadrons may be rotated to overseas duty for the tour lengths prescribed in the table provided the total sea tour does not exceed four years. Individual officers may request deviation. All Reserve officers may be extended six months to meet RAD dates.

The table here lists the length of overseas tours and the rotation policy for first sea tour aviation officers assigned to squadrons home-ported overseas. For more details see BuPers Inst. 1301.35.

Two Correspondence Courses Ready for Group VIII Ratings

Two new enlisted correspondence courses for Navymen in the Group VIII (Construction) ratings are now available, and four old ones have been discontinued.

The new courses are: *Utilities*

Man 1 & C (NavPers 91596-1) which consists of six assignments and counts for 18 Reserve retirement points; and *Draftsman 1 & C* (NavPers 91489)—seven assignments and 21 retirement points. The new UT course can be taken for repeat Naval Reserve credit.

The four discontinued courses are: *Steelworker 3* (NavPers 91588-D), *Steelworker 2* (NavPers 91589-B), *Utilities Man 1* (NavPers 91595-B), *Utilities Man C* (NavPers 91596-B).

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service Bldg. 311, Naval Base, Brooklyn 1, N.Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in June.

Dark Passage (1525): Drama; Humphrey Bogart, Lauren Bacall.

The Bramble Bush (1526) (C): Drama; Richard Burton, Jack Carson.

Please Don't Eat the Daisies (1527) (C) (WS): Comedy; Doris Day, David Niven.

The Adventures of Robin Hood (1528): Drama; Errol Flynn, Basil Rathbone.

The Leech Woman (1529): Science-fiction; Colleen Gray, Grant Williams.

Guns of the Timberland (1530) (C): Melodrama; Alan Ladd, Jeanne Crain.

Bobbikins (1531) (WS): Comedy; Shirley Jones, Max Bygraves.

Jack the Ripper (1532): Melodrama; Lee Patterson, Eddie Byrne.

Adventures of Don Juan (1533): Melodrama; Errol Flynn, Viveca Lindfors.

Three Murderesses (1534) (C): Comedy; Alain Delon, Mylene Demongeot.

Comanche Station (1535) (C) (WS): Western; Randolph Scott, Nancy Gates.

Chance Meeting (1536): Drama; Harry Kruger, Stanley Baker.

Two Guys from Milwaukee (1537) Comedy; Dennis Morgan, Jack Carson.

Visit to a Small Planet (1538): Comedy; Jerry Lewis, Joan Blackman.

Adventures of Huckleberry Finn (1539) (C) (WS): Drama; Tony Randall, Patty McCormack.

Man or Gun (1540) (WS): Western; MacDonald Carey, Audrey Totter.

Dr. Ehrlich's Magic Bullet (1541) Drama; Edward G. Robinson, Ruth Gordon.

Heller in Pink Tights (1542) (C): Comedy; Sophia Loren, Anthony Quinn.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

These directives cover a period of two months.

Alnavs

No. 8—Warned all personnel of the hazards of highway travel during

All-Navy Cartoon Contest C. Wise, HM1, USN



"No, I didn't take a shower. . . . Is one missing?"

weekends, especially over holidays.

No. 9—Announced approval by the Secretary of the Navy of the report of a selection board which recommended warrant officers and chief warrant officers for promotion to chief warrant officer, W-4; chief warrant officer, W-3 and chief warrant officer, W-2.

No. 10—Announced the convening of selection boards to recommend officers in the grade of captain on active duty for promotion to the grade of rear admiral and to recommend USN officers for continuation on the active list.

No. 11—Ordered suspension of the use of certain types of flexible hose used for oxygen charging.

Instructions

No. 1120.19A—Prescribes the regulations and procedures whereby eligible Navy officers may request transfer to the medical service of the Army or Air Force.

No. 1301.25A—Sets forth instructions regarding the submission of the new Officer Preference and Personal Information Card (NavPers 2774).

No. 1321.2C—Announced changes to this Instruction, which is concerned with the issuance of temporary additional duty orders involving travel of officers and midshipmen.

No. P1430.7D—Provides guidance and information concerning advancement in rate and rating of enlisted personnel on active duty.

No. 1440.25—Announces the disestablishment of the Aviation Guided Missileman (GF) and describes the change of rating procedures for active duty GF personnel.

No. 1440.26—Established the rating of Postal Clerk (PC) and describes the implementation procedures.

No. 1910.11D—Provides for the early separation of certain enlisted personnel of lower professional competence and adaptability.

No. 5321.2D—Describes the nature of the Manpower Authorization (NavPers 576) formerly the allowance/complement, and of the procedures for insuring its validity.

No. 5815.1—Provides guidance for authorities in connection with the suspension of court-martial sentences of enlisted Navy personnel.

Notices

No. 1306 (30 April)—Announced advanced information concerning the change in length of a normal

tour of BuPers-controlled instructor duty.

No. 1560 (3 May)—Announced the availability of periodicals in the Russian language.

No. 1000 (12 May)—Invited attention to the prohibiting of members of the naval service, while on extended active duty, from using their military titles in connection with any commercial enterprise.

No. 1306 (18 May)—Announced the sea-tour commencement cutoff dates to establish the eligibility of enlisted personnel for Seavey Segment Three, effective 1 October.

No. 1700 (18 May)—Provided rules governing the 1960 All-Navy and the Ninth Inter-Service Photography Contest.

No. 1020 (19 May)—Announced changes to U.S. Navy Uniform Regulations.

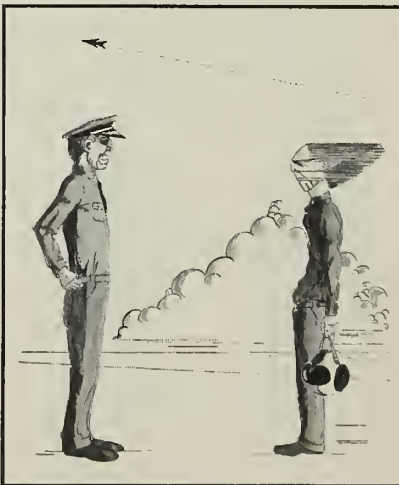
No. 1418 (19 May)—Announced the schedule for Navy-wide examinations for enlisted personnel to be held in August.

No. 1910 (20 May)—Suspended BuPers Inst. 1910.11C, which is concerned with the separation of certain enlisted personnel serving on active duty.

No. 1221 (23 May)—Alerted all commands to the distribution of Change No. 1 to *Manual of Navy Enlisted Classifications* (NavPers 15105B).

No. 1520 (31 May)—Provided information concerning the planned fiscal year 1962 Navy Postgraduate Educational Program.

All-Navy Cartoon Contest H. L. Funston, BT2, USN



"I see you've been flying with the top down again Mr. Quinney."

No. 1552 (31 May)—Announced to commanding officers the distribution of *Training Publications for Advancement in Rating* (NavPers 10052-H).

No. 1133 (4 June)—Provided information concerning the cancellation of the program of selective retention of personnel approaching, completing or exceeding 20 years service.

No. 1418 (8 June)—Forwarded Change No. 1 to BuPers Notice 1418 of 19 May 1960 which is concerned with the Navy-wide examinations for advancement in rating.

No. 1130.4F (9 June)—Changed BuPers Inst. 1130.4F, which is concerned with the enlistment in the Regular Navy of Naval Reserve personnel serving on active duty.

No. 1321 (9 June)—Provided information relative to a revised system and format for issuance of Repeat Travel Orders.

No. 1430 (9 June)—Discussed the advancements resulting from the February 1960 Navy-wide examinations and estimated the opportunities for advancement as a result of the August Navy-wide examinations.

Get Out Your Cameras for All-Navy Photo Contest, Deadline Is 1 October

Navy shutterbugs will have a chance to display their talents again this year in the 1960 All-Navy Photography Contest and, if good enough, in the Ninth Inter-Service Photography Contest.

The 1960 All-Navy Photo Contest will be conducted in October 1960 at the Bureau of Naval Personnel in Washington, D.C. Winning entries and other selected photographs will be forwarded to the Department of the Army for entry in the Ninth Inter-Service Photo Contest to be held in early December 1960 at the Army-Navy Country Club, Arlington, Va. The Army is host for this year's inter-service contest.

Preliminary contests may be held by the Fleet Commanders and Naval District Commandants. If local contests are held, all entries submitted will be forwarded to the Chief of Naval Personnel (Attn: Pers G11) for entry in the 1960 All-Navy Photo Contest.

Entries should be mailed in time to be received by 1 Oct 1960. NROTC and Reserve units are ex-

cluded from participation in the All Navy and Inter-Service Photo Contests.

Active duty personnel may submit entries in any of seven categories of the following two groups:

GROUP I—Black-and-white single photographs. Enlargements may vary from a minimum of 8 x 10 inches to a maximum of 16 x 20 inches. Entries must be unmounted and unmatte and may not be tinted. Toning, however, is permissible. Generally, negatives are not required but for all prize winning or honorable mention entries in this group negatives will be required upon notification of results of the All-Navy contest.

GROUP II — Color transparencies. They may be up to 4 x 5 inches in size and enclosed in plastic envelopes or other protective covering. All transparencies must be mounted and each marked with a red dot in the lower left corner of the mount when the transparency is held for normal viewing. The name and rank/rate of the contestant, together with the title and category *must be* printed on the mount.

The seven categories for each of the two groups include: (1) portraits, (2) babies and children, (3) animals and pets, (4) sports or action, (5) scenic, (6) military life, and (7) experimental.

Here are the contest rules:

- Any photograph which has been taken by the contestant after 1 Dec 1958 may be entered.

- Official military photographs will not be accepted.

- Entries considered unworthy of consideration or unsuitable for exhibition may be withdrawn by contest officials.

- Upon determining that an entry is not in the correct category, contest officials will either transfer or disqualify it.

- Entries which do not conform to size restrictions, are improperly identified, or not submitted properly will be disqualified.

- Color transparency entries will be returned to contestants. Although every possible effort will be made to assure safe return of entries, the Department of the Navy will not assume any responsibility for loss or damage.

- Black-and-white entries submitted for the 1960 All-Navy Photography Contest will automatically be-

NOW HERE'S THIS



Cups Runneth Over

Cigar smokers aren't the only people who are on the receiving side aboard *uss Oglethorpe* (AKA 100), when a new baby joins a crew members family. Now, junior gets a gift too—from the ship.

The ship presents an engraved silver cup to each new arrival in an *Oglethorpe* family. In one ceremony this spring, 16 proud papas accepted the cups on behalf of their new youngsters.

The presentation ceremony is getting to be a tradition in *Oglethorpe*, and silver cups are a regular item on the Welcoming Committee's order list.

come the property of the Department of the Navy and will not be returned to the contestants.

- The standard entry blank (See enclosure one to BuPers Notice 1700 of 18 May 1960) may be used instead of a standard model release for individuals who are U.S. citizens and who are subjects of portraits photographs entered in the competition.

- No contestant may withdraw an entry during the contest.

- All military personnel on active duty for 90 days or more are eligible to enter. (Armed Forces personnel assigned to the U.S. Navy are considered to be members of the Navy for purpose of competition on the base, district and Fleet level.)

- All entries submitted will be identified as follows:

Group I — Affix a 3 x 5 card to the reverse of the photograph with the following information printed on

it: (1) Category, (2) Contestant's name, grade, service number and his military address, (3) Command forwarding the entry, and (4) Title of entry.

Group II — Enclose a 3 x 5 card with the transparency containing the same information as for Group I. This is in addition to the information which is to be placed on the mount.

- Each photograph entered must be accompanied by an entry form as shown in enclosure one to BuPers Notice 1700 of 18 May 1960. (This form may be reproduced locally on available equipment.)

Winning and selected entries from the Ninth Inter-Service Photo Contest will be exhibited in the concourse of the Pentagon and Smithsonian Institution, Washington, D.C., after the contest.

Suitable awards for the 1960 All-Navy Photo Contest will include one award for the winning photograph of each category of each group. The next four place winners will receive an honorable mention.

No contestant may receive more than one winning award for each group. A contestant may, however, receive an honorable mention in addition to a winning award.

Awards for the Ninth Inter-Service Photography Contest will be presented to the first three place-winners and three honorable mentions in each category of both groups. "Best of Show" awards will be presented to each group. The perpetual Inter-Service Photography Trophy will be awarded to the Service with the greatest number of points.

The Bureau has made every effort to obtain well qualified judges for the final selection, and local commands have been advised to select equally qualified judges at the district and local level.

QUIZ AWAY ANSWERS

Quiz Aweigh is on page 47

1. (c) Nuclear radiation.
2. (b) Underwater burst.
3. (b) 12 miles.
4. (d) Surface burst.
5. (c) Securing all apenings and vents.
6. (b) Remaining in radioactive area too long.
7. (d) Fallout and base surge.

If you failed this quiz, you had better review the basic reference, ABC Warfare Defense (NavPers 10099).

Sailing to Saipan? Here's Latest Report on Living Conditions

SAIPAN MAY BE a long way from home but you'll find duty there not too different from any other Navy activity. Nevertheless, each duty station has its own small peculiarities. Here's a brief fill-in on living conditions you'll find there.

CLIMATE — The climate is fairly equable throughout the year. The average daytime temperature is in the middle 80's and drops to the high 70's at night. It is rarely uncomfortable. The humidity is high, especially during the rainy season which extends from August to December. This is also the period during which typhoons are most likely to strike although they usually are not severe in this area.

DEPENDENTS' TRAVEL—Dependents may not enter Saipan without a travel authorization from Commander Naval Forces Marianas, and a passport. Concurrent travel is sometimes authorized. The letter of authorization for dependents' overseas travel will be received in sufficient time to complete all necessary arrangements for passports prior to travel to Saipan. Military personnel are not required to have passports.

After the Commandant, Twelfth Naval District, has been advised that you are ready to depart on or after a certain date, you will be booked on the first available ship sailing after that date. You will be notified that space is offered you on a certain vessel departing from a certain port (San Francisco or Seattle). You will be given a time limit in which to wire your acceptance of this offer. Your reply should be sent to San Francisco.

Specific instructions will be given you as to when and where to report for embarkation. You should not leave home and proceed to the port of embarkation in advance of receipt of notice to report. Hotel accommodations are difficult to obtain in all principal ports. Air travel may be authorized under certain conditions, usually where small infants are involved and in certain pregnancy cases.

INOCULATIONS — Cholera, typhus, typhoid, tetanus and small pox immunizations are required for the Far East area.

BAGGAGE — Baggage should be shipped in trunks and footlockers.

Living Conditions Pamphlets

But suppose you don't get orders to Saipan? What if your orders are cut for Buenos Aires? Or Iceland, or London?

If you are about to move on to a new duty station, you'd be wise to request from the Chief of Naval Personnel, (Attn: Pers G22) a complete report on living conditions for that area.

Chances are, they'll have some information which will help you.

Hand baggage should be inexpensive and durable. It is not advisable to bring good luggage as the climate is very hard on all types of leather.

LIVING QUARTERS — Permanent government quarters are available for which rental allowance is deducted. Quarters are of the quonset variety. Concurrent travel is permitted if quarters are available, how-

ever, at the present time there is a waiting list of approximately eight to nine months for enlisted personnel. Quarters are adequately furnished with an electric stove, refrigerator, deep freeze, washing machine, dining room and living room furniture, single and double beds with mattresses, dressers, lamps, fans, end tables, coffee tables, floor lamps and table lamps. Curtains are not provided; however, it is not advisable to bring curtains or drapes because of the varied size of the windows. Rods are not provided. Quarters are either two or three bedrooms with one bath.

PRIVATE HOUSING — Private rentals are available at nominal rates. All such housing is subject to approval of the Public Works Department and on occasions tenants have had to stand the cost of installing adequate plumbing facilities. The farthest distance from private housing to the NAVAD area is about 15 minutes'

Saratoga Is a Famous Name, Dating from

It's not often that a defeat brings about a victory, but during the American Revolution a defeat of soldier-manned American ships on Lake Champlain helped make possible the decisive victory of the American Army at Saratoga.

Because of the delay caused by the lake battle in 1776, the British Army under General Carleton was forced to withdraw to winter quarters in Canada. Without the aid of this Army, General Burgoyne's troops were defeated at Saratoga when he attempted to invade New York State early the next spring.

Since then several U.S. Navy ships, including the current CVA 60, have borne the name *Saratoga*.

The first ship of that name was an 18-gun sloop-of-war of the Continental Navy. It was launched on 10 Apr 1780, and during one battle the ship simultaneously fought the British Navy's 28-gun *Elizabeth* and the 14-gun *Nancy*. After an hour, both British ships were captured.

Later during the war, *Saratoga* left her convoy to chase two enemy ships. She captured one of them, and was last seen pursuing the second. *Saratoga* and her entire crew

of six officers and 80 men were never heard from again.

The second *Saratoga* was a 26-gun ship-rigged corvette launched on 11 Apr 1814. One of her earliest actions was the best known Battle of Lake Champlain—fought during the War of 1812. *Saratoga* avenged the earlier defeat on that lake by leading an American naval force to one of the outstanding victories of the war. *Saratoga* was finally sold in 1825.

A first-class sloop of 20 guns was the third *Saratoga*. She was launched on 26 Jul 1842 and performed routine duties until the Mexican War. She then joined the blockading squadron off Vera Cruz.

When the ship was later assigned to the West India Squadron in 1847 she was skippered by Commander David G. Farragut.

During the Civil War, this *Saratoga* sailed as an escort for merchant ships and was also part of the South Atlantic Blockading Squadron. After that she was laid up for a few years before taking on a new job of training Navy recruits. In 1890 she was loaned to Pennsylvania as a school ship and was finally sold in 1907.

drive. A car is essential for this as there is no local transportation. Most private housing is far below U.S. standards and one should not expect to find housing comparable to that in the States. Furniture for private housing is not available from the U.S. Naval Administration Unit and very little is available in the local market. That which is available is high in price.

Electrical current is 110/220 volt, 60 cycle AC.

BOQ quarters are all furnished. No wardroom or closed mess is operated. Officers eat on the general mess.

DOMESTIC HELP — Daytime servants are available at \$1.50 per day average. Rates for baby-sitters and night-time servants are comparable.

SPECIAL EQUIPMENT — Hot lockers are in each house for storage of leather goods which prolongs their life. Closets are equipped with electric lights to reduce the humidity and dry out clothes. Some mildew forms on items and they should be

frequently inspected before complete deterioration takes place.

Clothes dryers are not furnished and are not always available through the Navy Exchange. A clothes dryer is recommended for the rainy season, particularly for those families with small children.

The water on Saipan is hard and clothes with elastic deteriorate quite rapidly. There are several commercial preparations on the American market which if properly used, will prolong the life of such garments.

There are limited laundry facilities available. Housing allowance of washing machines is adequate to meet all laundry needs.

CLOTHING — Washable garments are a necessity since there is no dry cleaning service available on the Island. Everyone should, of course, bring bathing suits.

Plenty of clothing of all types should be brought as very little is available locally or through the Navy Exchange. Stateside mail order houses provide the most usual source.

Officers should have at least two pairs of long khaki cotton trousers and a like number of long-sleeved khaki shirts, two pairs of khaki tropical shorts, two khaki tropical short-sleeved shirts, six white tropical shorts, or long pants, six white tropical short-sleeved shirts, two suits of service dress whites. This outfit should last for a tour of duty.

The normal uniform of the day is tropical whites. The above outfit is only a suggested outfit. Those who work outside most of the time will need more long trousers than those who work in offices. Officers must have all medals and ribbons.

MEDICAL FACILITIES — Health and sanitation conditions on Saipan are generally excellent. There are no epidemic diseases; and malaria, except for the recurrence of cases contracted elsewhere, is unknown on the island.

Babies seem to thrive on the climate although they get heat rash at one time or another and are susceptible to impetigo skin infections.

Revolution's 18-Gun Sloop-of-War to Today's Super Carrier

The fourth *Saratoga* was originally built and commissioned as *uss New York*. After the battle of Santiago during the Spanish American War, *New York* was renamed *Saratoga*. Nearly seven years later her name was again changed—this time to *uss Rochester*. She was decommissioned in 1933, stricken from the list of Navy ships in 1938, and was finally towed into the Subic Channel on 24 Dec 1941 and sunk to prevent her capture by the Japanese.

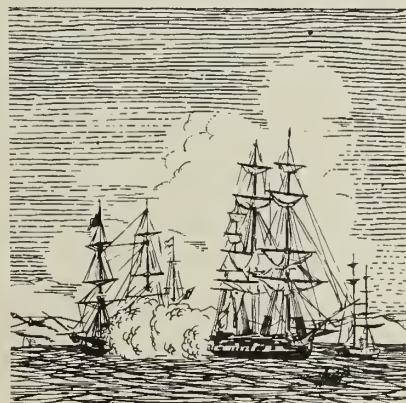
At the same time, there was another *Sara* in the fight. This time, however, she was not a cruiser, but an aircraft carrier, CV 3. In August 1942 her planes supported the Marines at Guadalcanal. Later that month, her torpedo planes and dive bombers sank the Japanese carrier *Ryujo* and damaged the seaplane carrier *Chittose*.

A few days later, on 31 Aug 1942, *Saratoga* was tagged by a Japanese submarine. She took a torpedo on the starboard quarter which damaged the engineering and electrical systems to such an extent that she lay dead in the water. Before the enemy could get at her, however, the cruiser *Minneapolis* took her in

tow until power was restored.

Later in the war, *Saratoga* joined Admiral Mitscher's Task Force 58 for the first carrier aircraft strike on Tokyo on 17 Feb 1945, and the invasion of Iwo Jima two days later.

On 21 Feb 1945 *Sara* was badly damaged for the second time in the war. Four suicide planes and seven bombs struck home and took the lives of 123 men and wounded 192 others. She finally brought the fires under control, and limped to Puget Sound Navy Yard where she was made ready for battle in about two months. She never saw battle again.



During the remainder of the war she performed training duties in the Pearl Harbor area, and then joined the Magic Carpet Fleet. She returned some 29,000 Pacific War veterans to the United States.

Sara's life ended on 25 Jul 1946 when she was swallowed up by the waters off Bikini Atoll as the result of an underwater atomic bomb blast.

The current *uss Saratoga* (CVA 60) is somewhat larger than the first *Saratoga* which was launched some 180 years ago. Here's how they compare:

FIRST SARATOGA (1780-81)	PRESENT SARATOGA (CVA 60)
Length: .....68 feet	1046 feet (over-oll)
Beam: .....25 feet	252 feet (flight deck)
Displacement:	
150 tons	60,000 tons
Cost of construction:	
UNKNOWN	\$207,000,000

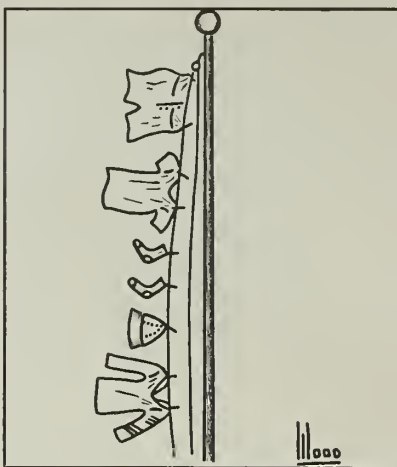
cva 60 actually joined the Fleet in mid-April 1957 after completing her post-shakedown availability. Since then she was operated in the Atlantic Fleet. Currently *Sara* is spending her third tour of duty as part of the U.S. Sixth Fleet operating in the Mediterranean theater.

There is a modern station hospital where almost all ailments can be treated. Cases which cannot be treated adequately locally are sent to the U.S. Naval Hospital, Guam.

If you have a favorite patent medicine, salve, ointment or vitamin mixture, a plentiful supply should be brought along since there are no commercial drug stores on the Island.

There are limited dental facilities on Saipan. It is important that all dental work be completed prior to departure from the States.

COMMISSARY AND NAVY EXCHANGE — Saipan has a commissary store which furnishes canned goods, meats and frozen foods. Fresh reconstituted milk is brought in from Guam weekly and dry skimmed milk and canned milk are available. Baby food is available in sufficient quantities. Fresh produce is available in the store al-



"I don't care if it isn't used from sunset to 0800, take 'em down."

though lettuce, celery and some other vegetables which are brought in from the States are not always of

top grade. Some local produce such as tomatoes, peppers, cucumbers and melons are generally available in the store when in season. Avocados, corn, pineapples, bananas, egg plant, papayas, mangoes, coconuts and other native fruits and vegetables are available in local markets when in season.

The exchange carries essentials and some children's clothing, go-aheads, limited fishing gear, toilet articles, a limited amount of household appliances and kitchen utensils, stationery, uniforms and accessories, film and limited photographic supplies. At times, washers, dryers, refrigerators, phonographs, photographic equipment, dishes and items suitable as gifts are available. Gasoline is sold through the Navy Exchange but is of lower octane than regular gasoline Stateside. A barber shop is available for men but no

All-Metal Dolphin Will Help to Train Navy's Polaris Submariners

The first *Polaris* test missiles scheduled for launching from a submerged submarine have been undergoing preliminary underwater testing off the Southern California coast (see page 39 June 1960 ALL HANDS).

Full-scale dummy missiles, designed for launching-system testing and crew-training, carry neither warhead nor fuel. They have been specially devised to:

- Check out all submarine launching systems before insertion of live missiles.
- Train submarine crews in missile-launching.
- Determine underwater trajectories of missiles in sea conditions ranging up to hurricane force.

The dummy missile, known formally as a Launch and Training Vehicle (LTV), has been nicknamed *Dolphin* because it is designed to clear the surface of the water by only a few feet and then lie awash until recovery for reuse. Its ability to dissipate its launch energy and to float prevents it from dropping back down on the launching submarine. It can also be launched on the surface.

Dummy missiles for the *Dolphin* program will be assembled and shipped to each of the Fleet ballistic missile submarines. Qualification tests involving one of the dummies

are now in progress at the San Clemente Island sea range.

LTV launches, both surfaced and submerged, will be made by the crew of the *USS George Washington*, SSB(N) 598, first Fleet ballistic missile submarine to join the Fleet. Countdown procedures will be identical with those for live missiles.

Analytical and design studies and small-scale tests demonstrated that a single type of vehicle, with adjustable features, could fulfill the three required functions. The tank simulates submarine motion and sea conditions. *Dolphin* was the result.

Dolphin consists of a rolled steel cylinder of *Polaris* diameter which extends for two-thirds the total length, and a tubular "spine" which runs the full length. To the forward end of the spine is affixed the nose fairings, containing an instrument package. A truncated cone section slides over the spine to complete the hydrodynamic shape of *Polaris*.

Half the weight of the LTV is in the form of water ballast. After submerged launch, this water is ejected upward with great force just after the base of the test vehicle clears the surface. The reaction forces stop the LTV's ascent, and the device falls back after climbing only a few feet. Now buoyant, it floats until retrieved. The instrumentation pack-

age, carried aloft by the water stream comes down by parachute and also floats until recovered.

The LTV floats with its axis six degrees from horizontal, and its nose slightly above the surface, to facilitate recovery of another instrument package installed in the forebody.

A sealed, watertight instrument package has been developed which is self-contained with 10 pickups, batteries and a tape recorder. The package conducts self-calibration of each measurement channel immediately before and after each launch. It does not require any attention after it is installed in the LTV or any maintenance in the field.

For launching at the surface or for training exercise involving more than a single launch, the LTV is fitted with a side vent and clamp arrangement which permits diversion of part of the water stream to the side, thus off-setting the dummy on a lateral trajectory which will prevent collision with the submarine or with other LTV's. This change can be made while the submarine is submerged.

To facilitate the underwater launch test program, a staging area is operated at Long Beach Naval Shipyard for assembly and maintenance of launch test vehicles and checkout of their instruments.

beauty facilities are available for women. A snack bar is available for all personnel. Cobbler and tailor shops are not available at the Navy Exchange. These services are provided locally.

There is a Clothing and Small Stores retail outlet on Saipan which stocks drawers, undershirts, utility caps, belts, dungaree trousers, chambray shirts, socks, towels, white hats and a limited number of sizes of white jumpers and trousers. All items stocked in clothing and small stores are available on order from Guam with delivery time approximately two weeks. Special sizes must be ordered from the Clothing Supply Office and delivery time will average from four to six weeks.

AUTOMOBILE — A car is almost a necessity because there are no public transportation facilities. A jeep is particularly desirable because it can go almost any place on the island whereas cars are restricted to the main roads. It is not recommended that a new car be brought. A two-to-five-year-old car is considered best. The car should be in first-class mechanical condition since only limited repair services are available. Gasoline on Saipan is very reasonable in price but is of low octane.

SCHOOLS — Saipan has a Navy dependent school which provides instruction through the high school grades. There is a kindergarten available where children may be sent for a nominal fee. High school students use correspondence courses provided by the Navy from the University of Nebraska. All students should bring report cards from the last school attended.

RECREATION FACILITIES — Recreation facilities are quite numerous and include softball, baseball, golf, swimming and picnicking. There is an excellent nine-hole golf course. The course is open all year around. Golf clubs are available on a loan basis without charge from Special Services.

Several fine beaches are available for use by dependents as well as by officers and enlisted men. A favorite sport is making exploration trips by jeep into the hills and jungle, in conjunction with a picnic.

It is not advisable to bring valuable or good books to Saipan because they are quickly ruined by mildew and small termite-like bugs. There is a library available to personnel and their dependents.

SIDELINE STRATEGY

"THE CALIBER OR QUALITY of naval athletic teams is determined by many factors: Command interest and support, available talent, development of fundamentals and skills, coaching and instruction, practices and techniques, physical and mental conditioning, team work, team spirit, and a desire to win."

That statement appears on the masthead of the *Sports and Recreation Bulletin* published monthly by the 12th Naval District. And, from the contents of this small publication, 12ND seems to practice what it preaches.

To give you an idea of "... command interest and available talent ..." take a look at a few of the headlines in the most recent issue:

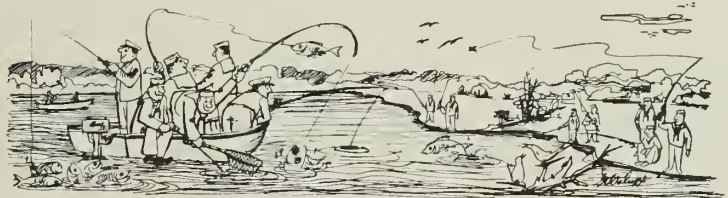
- 12ND Men's and Women's Swimming Championships
- "Pirates" lead 12ND Baseball League
- Oak Knoll Nurses in All-

All local commands are enjoined to improve the administrative function of their Special Services Divisions. Good administration makes good programs. Good programs effect morale. Morale is our end product!"

We've gone into some detail about Com 12's program because the consensus is that it's a good one. Perhaps your command has a sports and recreation program that equals this or may even be better. If so, let us hear about it and we'll let others hear about it too.

★ ★ ★

Some 1000 Navy men from NATTC Memphis, sporting new roles as freshwater fishermen, caught the imagination of the nation (along with some 4000 crappies) when they descended on fish-thick Sardis, Grenada and Enid Lakes in northern Mississippi as members of the "Navy Crappie Caravan."



Navy Bowling Finals .

• "Hell Kittens" Win 12ND Volleyball Championship

And, that isn't all. There were also articles on golf, horse shoes, pistol, pool, yachting, decathlon and archery.

This adds up to more than a dozen different sports, a baker's dozen at that, enough to keep even the most versatile, sports-minded Navyman occupied during his spare time. But, as impressive as this sports and recreation program may be, Com 12 is continually striving to improve its Special Services activities. As an example, take a look at another article in the same issue of the *Bulletin*. It says: "...

The real purpose of the trip—to promote fishing in the mid-South's crappie-thick lakes—was an unqualified success. This was due not only to the large number of fish caught, but also to the real old fashioned southern hospitality proffered by the big hearted Mississippians who wanted to make their Navy visitors feel at home. "Never saw anything like it," said one sailor who'd been taken in tow by a native of Water Valley and escorted to the hottest fishing spot in the lake.

"This'd be a wonderful experience even if I hadn't caught fish," he commented.

—H.G.B., JOC, USN.

DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

Gold Star in lieu of Second Award

★ COMBS, Thomas S., VADM, USN, for exceptionally meritorious service to the government of the United States in duties of great responsibility from December 1958 to April 1960 as Commander, Eastern Sea Frontier; Commandant, Third Naval District; Commander, Atlantic Reserve Fleet; and United States Navy Representative on the United States Delegation, United Nations Military Staff Committee. VADM Combs has been highly successful in improving the procedures and facilities for logistic support of Fleet units and in planning for the wartime control and operation of shipping from the East Coast of the United States. He has been instrumental in effecting considerable savings to the Navy Department and to the government of the United States.

★ CURTS, Maurice E., VADM, USN, for exceptionally meritorious service to the government of the United States in duties of great responsibility as Commander, Western Sea Frontier, and Commander Pacific Reserve Fleet, from 1 Feb 1958 to 1 Apr 1960, and as Commander Naval Defense Forces Eastern Pacific, from 15 Aug 1959 to 1 Apr 1960. The defensive capabilities of the Navy's eastern Pacific Forces have been an achievement directly attributable to VADM Curts' precepts and inspiring leadership. He has been a dominant force in the implementation of the Pacific Air Cargo Evaluation recommendations, which have resulted in reduced air-traffic and transportation expenses, providing a concurrent increase in logistic responsiveness.

★ WRIGHT, Jerauld, ADM, USN, for exceptionally meritorious service to the Government of the United States in a duty of great responsibility while serving as Supreme Allied Commander Atlantic, Commander in Chief Atlantic, and Commander in Chief United States Atlantic Fleet, from March 1954 to March 1960. Admiral Wright administered the great responsibilities of his

multinational commands and, in accomplishing the objectives of his complex missions, aided materially in advancing the objectives of the United States toward stabilizing world peace. In dealing with the highest level military and civilian representatives of foreign governments, he was instrumental in enhancing unanimity of effort in the discharge of the responsibilities of the United States in the North Atlantic Treaty Organization and in contributing substantially to the further strengthening and effectiveness of that Organization.



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service to the Government of the United States . . ."

★ BERG, Winfred E., CAPT, USN, for meritorious achievement as Senior Program Officer for Project Vanguard and the Space Surveillance System while serving at the United States Naval Research Laboratory. Constantly aware of the importance of these projects to the prestige of the United States, CAPT Berg gave unsparingly of his time in fulfilling the objectives. Exercising unusual professional ability, tact and diplomacy, he contributed immeasurably to the coordination of the service forces and contractors connected with the projects, which were completed far in advance of original schedules.

★ NICHOLSON, John H., LCDR, USN, for exceptionally meritorious conduct in the performance of outstanding services as commanding officer of *uss Sargo*, SS(N) 583, during the period 18 Jan to 26 Feb 1960. Under LCDR Nicholson's outstanding leadership, *uss Sargo* successfully completed the most extensive under-ice exploration of the Arctic Ocean yet attempted by a submarine, including the first entry into and exit from the Arctic Basin via the Bering Strait during the winter season. The severe weather and ice conditions encountered throughout the cruise were overcome by superb seamanship, technical competence, and command judgment. All scientific and operational objectives of the cruise were skillfully accomplished, resulting in the accumulation of knowledge and technical data of great value to the U.S. Government.

★ TUCKFIELD, Cyril J., Jr., ENC, USN, for exceptionally meritorious conduct in the performance of outstanding services in connection with trials of the buoyant ascent method of submarine escape in waters off Key West, Fla., during the period of 28 Sep to 2 Oct 1959. Repeatedly braving the hazards of rapid compression and decompression in performing these tests in the open sea at depths in excess of 150 feet, Tuckfield, utilizing a method of escape not previously tested at these depths, succeeded in carrying out a buoyant ascent from a submarine at a depth of 302 feet. Through this record-setting exploit, he not only helped to prove the feasibility of this method of escape from disabled submarines at a similar depth, but also contributed essentially to the safety and morale of submarine personnel.

Gold Star in Lieu of Third Award

★ HARTMAN, Charles C., RADM, USN, for exceptionally meritorious conduct in the performance of outstanding service as Commandant, Eleventh Naval District, from February 1955 to April 1960. Throughout this period, RADM Hartman displayed marked qualities of initiative, judgment and tact in carrying out his responsibilities, particularly in the field of public relations in a civilian area with large and important naval interests. He skillfully and effectively promoted harmonious relationships to the mutual benefit of the United States Navy and the civilian communities of the Eleventh Naval District. The cordial relationship existing between the citizenry of northern Mexico and the U.S. Navy is directly attributable to RADM Hartman's active interest and diplomacy in promoting a climate of mutual understanding.



DISTINGUISHED FLYING CROSS

"For heroism or extraordinary achievement in aerial flight . . ."

★ FLINT, Lawrence E., Jr., CDR, USN, for extraordinary achievement in aerial flight on 6 Dec 1959. As pilot of a Navy all-weather fighter aircraft, CDR Flint succeeded in establishing a new world jet aircraft altitude record of 98,560 feet. Exercising brilliant airman-ship, initiative and planning ability, he clearly demonstrated the inherent capa-

bilities and the maximum performance of an extremely important Naval aircraft, and was instrumental in focusing world attention on the continuing and significant development of the science of aviation in the United States.



"For heroic conduct not involving actual conflict with an enemy . . ."

★ **ANDERSON, Albert M., ENS, USN**, for heroic conduct during the hours of darkness, on the early morning of 18 Nov 1959 while serving on board *uss Ammen* (DD 527) in the Formosa Strait. When heavy seas washed two men and several life rafts overboard from an accompanying ship, *Ammen* instituted an immediate search and shortly thereafter, maneuvered alongside a life raft containing one of the victims, who was severely injured and unable to help himself. With *Ammen* rolling heavily and threatening to crush and swamp the raft, Ensign Anderson, in the face of grave personal danger, leaped onto the raft in a daring attempt to effect a rescue. With the aid of a shipmate who later joined him in the raft, he succeeded in placing the injured man into a stretcher and in hoisting him to the safety of the ship.

★ **HICKMAN, Albert J., ENS, USNR**, (posthumously) for heroism on 4 Dec 1959 as pilot of a Jet-Fighter aircraft in Navy Fighter Squadron 121 during a return flight to his home base at Naval Air Station, Miramar, Calif. When his aircraft went out of control as he maneuvered above the station preparatory to entering the traffic pattern, ENS Hickman elected to remain with his craft in order to steer clear of a populated area comprising a large housing development and an elementary school. Through skillful maneuvering, he succeeded in

avoiding the residential and school area, but descended below the minimum ejection altitude, sacrificing his life in the ensuing crash. Through his courageous and selfless action, ENS Hickman undoubtedly saved many lives.

★ **LEONARD, Thomas H. Jr., FN, USN**, for heroic conduct in rescuing a soldier from drowning at Paumalu Beach, Oahu, Hawaii, on the afternoon of 24 Oct 1959. Upon learning that a fellow serviceman was floundering in extremely rough waters, Leonard, with the aid of a surfboard, paddled a distance of approximately 525 yards to the side of the struggling victim. After getting him on the board, Leonard managed to maneuver it through the strong currents and huge waves to a point near the beach where they were assisted by firemen who hauled them ashore.

★ **NORRIS, Melvin L., AA, USN**, (posthumously) for heroism in attempting to rescue an accident victim on Salmon Mountain, Etna, Calif., on 27 Dec 1959. When a young girl, while sledding, missed a corner on a steep hill and slid over a high, snow-covered, nearly perpendicular embankment, Norris immediately proceeded down the precipitous slope to assist the victim. Within 40 feet of his destination, where the girl lay injured, he lost his footing and plunged to the bottom, sustaining injuries from which he died a few minutes later.

★ **POWELL, Judd M., GMC, USN**, for heroic conduct during the hours of darkness on the early morning of 18 Nov 1959 while serving on board *uss Ammen* (DD 527) in the Formosa Strait. When heavy seas washed two men and several life rafts overboard from an accompanying ship, *Ammen* instituted an immediate search and shortly thereafter, maneuvered alongside a life raft containing one of the victims, who was severely injured and unable to help himself. With *Ammen* rolling heavily and threatening to crush and swamp the raft, Powell, observing that a rescuer who had gone over the side to assist the victim was having trouble, unhesitatingly leaped onto the raft and, with the aid of his shipmate, succeeded in placing the injured man into a stretcher and in hoisting him to the safety of the ship.

★ **SALTER, Edward F. ATCS, USN**, for heroic conduct in rescuing a three-year-old boy from a burning quonset hut at Bucknerville, Okinawa, on 23 Dec 1959. Upon learning that a child was still inside the flaming hut after all other occupants had vacated it, Salter quickly battered open a locked door and, despite the heavy smoke and flames, searched the entire building before locating the boy under a bed in a back

room. With his escape route blocked by the rapidly spreading flames, he smashed a bedroom window, handed the child to safety, and escaped himself moments before the building became completely engulfed in flames.

★ **VINCENT, John T., (MC), LCDR, USN**, for heroic conduct on 19 Jan 1960 while serving with the Third Marine Aircraft Wing, Aircraft, Fleet Marine Force, Pacific, Marine Corps Air Station, El Toro (Santa Ana), Calif. When two aircraft collided and interlocked upon landing on the East-West runway, trapping one of the pilots within the cockpit, LCDR Vincent immediately proceeded to the scene of the crash and voluntarily joined the crash crew in attempting to extricate the pilot. Despite an intense fire centered beneath the cockpit area, and the obvious and imminent danger of an explosion, he remained with the victim throughout the 25 minutes required to complete the rescue. During this period, LCDR Vincent protected the seriously injured airman from further burns by wrapping protective jackets about the man's body and by interposing his own foam-covered body between the pilot and the searing flames. In the final stages of the rescue, he placed his upper torso within the cockpit and used his own arms as shields against the yielding metal. After the removal of the victim from the aircraft, he accompanied him and administered medical aid during a lengthy helicopter trip to a naval hospital.

Seven Navymen — Frank L. BODISCH, EN3, USN; Raymond F. CORMIER, Jr., SV2, USN; William V. DORCY, CMH2, USN; James K. HILBIRD, CE3 USN; Russell P. MCKENZIE, UT2, USN; Troy W. PERRYMORE, SVC, USN, and George J. RYMKIEVICZ, BU2, USN—have been awarded Navy and Marine Corps medals for their heroic conduct on 1 and 2 Mar 1960 as members of the initial rescue unit from Naval Activities, Port Lyautey, Kenitra, Morocco, at the time of the Agadir, Morocco earthquake disaster.

This is a report of their activities which led to their citation:

"During the hours of darkness with additional earth tremors reported imminent, they tunneled into the torn and twisted masonry of the fallen building completely out of sight of their fellow workers. With the aid of a flashlight, in spaces barely large enough for a single person, each chiseled the reinforced concrete with wrecking bars and removed the debris. They persisted in their efforts until they succeeded in effecting the safe removal of victims who had been entombed in the wreckage for 24 hours."

Four Navymen—John J. REILLY, SKC, USN; Dale E. REYNOLDS, CE1, USN; Bert K. BRANDT, UTCN, USN, and John F. SCHIAVONE, CN, USN—have been awarded the Navy and Marine Corps Medal for heroic conduct on 22 Sep 1959 while serving with MCB Three.

When a helicopter crashed and exploded into flames on the airstrip at the Marine Corps Air Facility, Futenma, Okinawa, pinning two Marine pilots in the flaming wreckage, they rushed to the scene and, with the aid of others, succeeded in removing the two injured men to safety despite a series of explosions and the intense heat and flames.

BOOKS

A LITTLE OF EVERYTHING IN THIS MONTH'S CHOICE

THE LARGE VIEW OF WAR, as well as its more personal aspects, may be found in this month's list of books selected for review. You'll find some or all of the books mentioned below at your ship or station library.

As might be expected from the title, *WAR THROUGH THE AGES*, by Lynn Montross, gives the big picture. Covering the period from 490 B.C., (battle of Marathon) to the present, Montross describes in detail almost every military action of any consequence. First published some 15 years ago, the present edition has been considerably revised and enlarged. World War II chapters have been rewritten to include material not earlier available. New material has been added to cover such facets of history as the cold war, Korea, and Lebanon. For reference purposes, there is a full chronological table as well as a bibliography of sources in chronological order. New diagrams and maps make a total of nearly 140 illustrations.

Two other volumes—*THE MIGHTY HOOD*, by Ernle Bradford and *ADMIRAL TOGO*, by Georges Blond—provide an interesting contrast. Bradford makes the point that, although *Hood* was one of the most beautiful ships alive as well as the largest and fastest warship in the world of her day, she had been designed with a fatal flaw. The range of the guns with which battleships were being armed made heavy side armor no longer sufficient. Equally heavy deck armor was also needed. Intended to be the fastest ship afloat, *HMS Hood* was completed as planned, with deck armor that would not cut her speed. As a result, on 24 May 1941, in her first and only engagement, she was sunk by *Bismarck* in the second volley ever fired at her. She sank so rapidly that there were only three survivors. In addition to telling the story of the ship herself, Bradford also describes interesting details of life aboard *Hood*. Cruisemen will enjoy making comparisons.

Togo has its points of interest in a much different fashion. This illustrates the dramatic rise of Japan from a medieval backcountry to one of the most powerful nations of the world—all in the lifetime of one man. Not only did his life span cover this

Hobby, Anyone?

And here's something for everyone who likes to work with his hands. At almost every ship or station library, you'll find a new edition of the *HOME CRAFTS HANDBOOK*. Although most of the projects appear to be simple, you'll find valuable tips no matter what your skill in the how-to-do-it field.

Written by an acknowledged authority in his field, the book tells the shortest, easiest methods of getting the best results. Directions are clarified by hundreds of close-up photographs. There are seven sections: Leather goods, wood furniture, metal pieces, plastic items, jewelry, graphic arts, and basketry.

amazing transformation, but Admiral Togo was, to a large extent, responsible for the change. He distinguished himself in the Korean crisis of 1882, started a war with China by sinking a Chinese troopship en route to Korea, and was responsible for the Japanese victory in that war's Battle of the Yalu. In the Russo-Japanese War of 1904-05, Togo prevented the Russian Far Eastern fleet from escaping from Port Arthur and then, when the Russian Baltic Fleet finally reached Asian waters, it was Togo who destroyed it at Tsushima. Both *Hood* and *Togo* present historical accounts in their most palatable form.

All-Navy Cartoon Contest
R. Varesi, AD3, USN



"I don't care what village you're from, on my ship you'll wear a uniform!"

THE OVERSEAS AMERICANS, by Harlan Cleveland, Gerard J. Mangone and John Clarke Adams, also deals with war but in a much different fashion. To discover why—and if—Americans are unpopular abroad, the authors have traveled wherever Americans work abroad, investigated local conditions, interviewed U.S. personnel and local citizens. They have put their conclusions into concrete recommendations on how the United States can better prepare its citizens for overseas responsibilities. The coverage is thorough. There are chapters on how overseas personnel are selected, training programs and their lack, the reasons why Americans prefer living and working in foreign countries, the impact of foreign cultures on Americans. As "overseas Americans" this book should be of interest to almost every Navyman.

We also have two examples—*GHOST SHIP OF THE POLE*, by Wilbur Cross and *WHAT CARES THE SEA?* by Kenneth Cooke—the disaster school of writing. *Ghost Ship* is the story of the dirigible *Italia*, which crashed on an ice pack near Spitzbergen in 1928 after it had circled the North Pole. Its leader, Umberto Nobile, was one of the severely injured survivors stranded on the ice. The account follows in detail the hardships experienced, the danger as the ice breaks up, the rescue efforts, and the controversy after Nobile's return.

What Cares the Sea? is equally grim—yet interesting. This story, told by one of the survivors, described 50 days on a raft in the Atlantic after the sinking of ss *Lulworth* by German torpedoes. Fourteen men, including the author, head for land. When a ship finds the raft nearly two months later, the sun, starvation, sharks and madness have accounted for all but two. One of these dies shortly after returning to England. As the title suggests, the sea really doesn't care at all.

For fiction, you might try *VIEW FROM THE 40TH FLOOR*, by Theodore H. White. Told with a slick professional touch, it describes the death-agonies (fiscal, that is) of two nationally famous magazines as seen primarily through the efforts of the corporation troubleshooter. White manages to suggest that, had the magazines had something to say instead of trying to be merely slick, they might not have found themselves in such a difficult spot.



MAHAN'S FIRST CRUISE

Change is the normal state of affairs in the Navy, and the transition from sail to steam was, perhaps, as far-reaching as the present shift from steam to nuclear power.

*Here, Alfred T. Mahan, better known as the author of *The Influence of Sea-Power Upon History* describes his reaction to those changes introduced into the Navy shortly before the Civil War. This was the Navy of one hundred and one years ago. The man who was to discuss with great brilliance the increasingly important role of the Navy of the future looks back at the Navy of his youth with warmth and nostalgia.*

*From *From Sail to Steam*, by Alfred T. Mahan. Published by Harper & Bros., copyright 1906, 1907.*

AT THE MOMENT of graduation in the summer of 1859, I had a narrow escape from the cutting short of my career. Myself and two friends had applied for the sloop-

of-war *Levant*, destined for the Pacific by way of Cape Horn. Luckily for us, the frigate *Congress* was fitting out and her requirements could not be disregarded.

Levant sailed, reached the Pacific, and disappeared—one of the mysteries of the deep.

We very young men had the impression that smaller vessels were better calculated to advance us professionally because, having fewer officers, deck duty might be devolved on us. This prepossession extended particularly to brigs, of which the Navy then had several. This was a pretty wild imagining, for I can hardly conceive anyone intrusting such a vessel to a raw midshipman. It is scarcely an exaggeration to say they were all canvas and no hull—beautiful as a dream, but dangerous to a degree except to the skillful. As it was, an unusual proportion of them came to grief.

After graduating, my first cruise was upon the Brazil





MAHAN lived from 1840 until 1914. He was born at West Point, N. Y., where his father taught military engineering.

Station, embracing the Cape of Good Hope and, generally, the coasts of South America and Africa, with the islands laying between, such as St. Helena and the Falklands. Montevideo, in the river La Plata, and Rio de Janeiro were the two chief ports between which we oscillated, with rare and brief stays elsewhere or at sea.

Congress was a magnificent ship of her period. Built about 1840, she represented the culmination of the sail era. On her forecastle, and to the fore and main masts were stationed 60 men, full half of them prime seamen—90 for the starboard watch, and 90 for the port; not to count the mizzen-topmen, after-guard, and marines, more than as many more.

I have always remembered the effect produced upon me by this huge mass when all hands gathered once to wear ship in a heavy gale. The ship having only fore and main topsails, close reefed, the officers beyond those of the watch were not summoned. The handling of the yards required only the brute force of muscle, under which, even in such conditions, they were as toys in the hands of that superb ship's company.

I had thus the chance to see things from the poop, a kind of bird's-eye view. As the ship fell off before the wind, and while the captain was waiting that smoother chance, which from time to time offers, to bring her up to it again on the other side with the least shock, she of course gathered accelerated way with the gale right aft. Unsteadied by the wind on either side, she rolled deeply, and the sight of those 400 or more faces, all turned up and aft, watching intently the officer of the deck for the next order, the braces stretched taut along in their hands for instant obedience, was singularly striking.

I NEVER HAD the opportunity of viewing the ship from outside under way at sea, but she was delightful to look at in port. Her spars, both masts and yards, were as true to proportion as was her hull; and the 25 guns she showed on each broadside, in two tiers, were close enough together to suggest two strong rows of solid teeth, ready for instant use. Nothing could be more splendidly martial.

Thirty-two pounders, all of them; except on either side were five eight-inch shell guns, a small tribute to progress. The rest threw solid shot for the most part.

Imposing as they certainly looked, and heavier though they were than most of those with which the world's famous sea-fights have been fought, they were already antediluvian.

A few years later I saw a long range of them enjoying their last repose on the skids in a navy-yard; and a bystander, with equal truth and irreverence, called them pop-guns. But the whole equipment of the ship, though up to date in itself, was so far of the past that I recall it with mingled pathos and interest.

Like the ship and her equipment, the officers and crew by training and methods were still of the olden time in tone and ideals; a condition of course, fostered at the moment by the style of vessel. Yet they had that curious adaptability characteristic of the profession, which afterwards enabled them to fall readily into the use of the new constructions evolved by the War of Secession.

By a paradoxical combination, the seaman of those days was at once most conservative in temperament and versatile in outlook. Among the officers, there was an open vision toward the future. I well remember Joe Smith enlarging to me on the merits of Cowper Cole's projected turret ship, much talked about in the British press in 1860; a full year or more before Ericsson obtained from us a hearing for *Monitor*. Cole's turrets were likened to a railway turn-table, a very illustrative definition; and Smith was already convinced of the value of the design which was proved in Hampton Roads the day after he himself fell gloriously on the deck of *Congress*.

IT WAS ABOUT AT THIS TIME that I had the unusual opportunity to see an incident of bygone times—the heaving down of a fair-sized ship of war. One of our sloops, of some 80 tons' burden, bound for China, had put into Rio for repairs—a leak of no special danger, but so near the keel as to demand explanation. It might get worse. As yet, Rio had no drydock and so she must be hove down.

This operation, probably never known in these days, consisted in heeling the ship over, by heavy purchases attached to the top of the lower masts, until the keel or at least so much of the side as was necessary, was out of water. As the leverage on the masts was extreme, almost everything had to be taken out of the ship, guns includ-

ed, to lighten her to the utmost; and the spars themselves were heavily backed to bear the strain.

The upper works, usually out of water, must on the down side be closed and protected against the proposed immersion. In the old days, when docks were rare and long voyages would be made in regions without local resources, a ship would be hove down two or three times in a cruise, to clean her uncoppered bottom or to see what damage worms might be effecting. When frequently done, familiarity doubtless made it comparatively easy; but by 1859, it had become very exceptional. I have never seen another instance. She was taken to a sheltered cove, in one of those picturesque bights which abound in the harbor of Rio, the most beautiful bay in the world.

I REMEMBER DISTINCTLY the boatswain telling of two small midshipmen, shipmates of his in a sloop-of-war of long-gone days, who had a deadly quarrel, calling for blood. A duel ashore might in those times have been arranged unknown to superiors—they often were—but the necessity for speedy satisfaction was too urgent and they could not wait for the end of the voyage.

Consequently, they decided to fight from the two ends of the spritsail-yard, a horizontal spar which crossed the bowsprit end and gave, or could admit, the required number of paces. Seconds were omitted. They might have attracted unnecessary attention and on the yard would have been in the way of the shot unless they sat behind their principals like damsels on a pillion.

So these two mites, procuring each a loaded pistol, crawled out quietly to their respective places, straddled the yard and were proceeding to business when the boatswain caught sight of them from his frequent stand between the knightheads.

He ran out, got between them in the line of fire and collared first one and then the other. From here, he brought them together on the forecastle, where he knocked their heads together until all the fight went out of them.

THE ABSENCE of *Congress* lasted a little over two years (1859-61), the fateful two years in which the elements of strife in the United States were sifting apart and gathering in new combinations for the tremendous outbreak of 1861. The first battle of Bull Run had been

NEAR MISS—Mahan barely missed being assigned to *USS Levant* for first cruise. She disappeared in Pacific.



BOATSWAIN'S MATE of Mahan's day stood for no foolishness. This one, from *USS Constitution*, is typical of era.

fought before *Congress* again saw a home port.

As a consequence, some details of that cruise have passed away forever, never to be repeated. We were in contact with it in all its forms and phases since, as midshipmen, we were used for every kind of duty.

Our captain interfered very little with us and his zeal for our improvement confined itself to putting us in three watches. Every night we had to be on deck and duty through one of the three periods of four hours each, into which the sea night is divided.

On the whole, watch keeping yields more of interest than disagreeable aspects. It must be conceded that it was unpleasant to be waked at midnight in your warm hammock, told your hour was come, that it was raining and blowing hard, that another reef was about to be taken in the topsails and the topgallant yards sent on deck. Patriotism and glory seemed very poor stimulants at that moment.

Still half asleep, you tumbled, somewhat literally, out of the hammock onto a deck probably wet, dressed by a dim, single-wick swinging lantern which revealed chiefly what you did not want, or by a candle which had to be watched lest it roll over and set fire to the woodwork.

Dressed in storm-clothes about as conducive to agility as a suit of mediaeval armor, and a sou'wester which caught at every corner you turned, you forced your way up through two successive tarpaulin-covered hatches, by holes just big enough to pass, pushing aside the tarpaulin with one hand while the other steadied yourself. And if there was no moon, how black the outside was to an eye as yet adjusted only to the darkness visible of the lanterns below. Except for a single ray on the little book by which the midshipman mustered the watch, no gleam





of artificial light was permitted on the spar (upper) deck; the fitful flashes dazzled more than they helped.

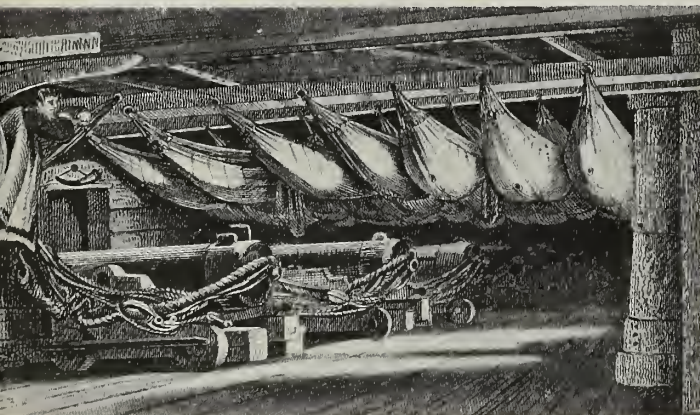
YOU GROPED YOUR WAY forward with some certainty, due to familiarity with the ground and with more certainty of being jostled and trampled by your watch-mates, quite as blind and much more sleepy than officers could afford to be.

The rain stung your face; the wind howled in your ears and drowned your voice; the men were either intent on going below or drowsy and ill-reconciled to having to come on deck; in either case inattentive and hard to move for some minutes.

In truth, the 15 minutes attending the change of a watch were a period not only of inconvenience but of real danger too rarely appreciated. I remember one of the smartest seamen and officers of the old Navy speaking feelingly to me of the anxiety those instants often caused him.

The lieutenant of an expiring watch too frequently would postpone some necessary step, either from personal indolence or from a good-natured indisposition to disturb the men who when not needed to work slept about the decks—except, of course, the lookouts and wheel. The other watch would soon be coming up, he would argue; let them do it before they settle down to sleep. There were times, such as a slowly increasing gale, which might justify delay; especially if the watch had had an unusual amount of work.

But tropical squalls, which gather quickly and sweep down with hurricane force are another matter, and it was of these the officer spoke. He suggested that possibly such an experience had caused the loss of one of our



large, tall-sparred sloops-of-war, *Albany*, which in 1854 disappeared in the West Indies.

The men who have been four hours on deck are thinking of their hammocks; their reliefs are not half awake and do not feel they are on duty until the watch is mustered. All are mingled together—the very numbers of a ship of war under such circumstances impede themselves and their officers.

BUT WHEN YOU WERE AWAKE, what a mighty stimulus there was in the salt roaring wind and the pelting rain! how infectious the shout of the officer of the deck! The answering cry of the topmen aloft—the “Haul out to windward! Together! All!” reached your ears from the yards as the men struggled with the wet, swollen, thrashing canvas, mastering it with a mighty pull, and “lighting to windward” the reef-band which was to be the new head of the sail, ready to the hand of the man at the post of honor, the weather earing.

How eager and absorbing the gaze through the darkness from deck, to see how they were getting on; whether the yard was so braced that the sail lay with the wind out of it, really slack for handling though still bellying and lifting as the ship rolled, or headed up or off; whether this rope or that which controlled the wilful canvas needed another pull. But if the yard itself had not been laid right, it was too late to mend it. To start a brace with the men on the spar might cause a jerk that would spill from it someone whose both hands were in the work, contrary to the sound tradition, “One hand for yourself and one for the owners.”

Then, when all was over and snug once more, the men down from aloft, the rigging coiled up again on its pins, there succeeded the delightful relaxation from work well done and finished, the easy acceptance of the quieting yet stimulating effect of the strong air, enjoyed in indolence; for nothing was more unoccupied than the seaman when the last reef was in the topsails and the ship lying-to.

TASTES DIFFER as to which of the three night watches is preferable. Perhaps someone who has tried will reply they are all alike detestable, and will add that the only decent watch on deck is the watch below.

But I also have tried; and while prepared to admit that perhaps the pleasantest moment of any particular watch is that in which your successor touches his cap and says “I relieve you,” I still maintain there are many compensations. The lieutenant of the watch had always before him the possibilities of a mischance; and one very good officer said to me he did not believe any lieutenant in the Navy felt perfectly comfortable in charge of the deck in a heavy gale.

Freedom from anxiety, however, is a matter of temperament, not of courage, although it adds to courage the invaluable quality of not wasting nerve force on difficulties of the imagination. A weather brace may go unexpectedly; a top-sail sheet part; an awkward wave come on board. Very true, but there is no use worrying unless you are constitutionally disposed to worry. If you are so disposed, there is no use in talking.

I preferred the mid-watch, from midnight to four, in ordinary weather. There was more time and scope to enjoy. The canvas had long before been arranged for the night. If the wind shifted, or necessity for tacking arose, of course it was done; but otherwise a considerate officer

would only rouse the men for imperative reasons.

The hum of the ship, the loitering idlers, last well on to ten, or after, in the preceding watch; and the officers of the deck in sailing ships had not the reserve—or preserve—which the isolation of the modern bridge affords its occupants. Although the weather side of the quarter-deck was kept clear for him and the captain, there was continued going and coming and talking nearby. He was on the edge of things, if not in the midst, while the midshipman of the forecabin had scarce a foot to call his very own.

When the mid-watch had been mustered, the lookouts stationed, and the rest of them had settled themselves down for sleep between the guns out of the way of passing feet, the forecabin of *Congress* offered a very decent promenade, magnificent compared to that of the poops of small vessels—"two steps and overboard."

Then began the steady pace to and fro, which to me was natural, easily maintained and consistent with thought—indeed, productive of it. Not everyone has this habit, but most acquire it. I have been told that, however, weakly otherwise, the calf muscles of watch-officers were generally well developed.

DAYS OF THE PAST! Certainly a watch spent reefing topsails in the rain was less tedious than that everlasting bridge of today. Tramp! Tramp! Tramp! or stand still, facing the wind blowing the teeth down your throat.

And then, when you went below you went, not bored, but healthfully tired with active exertion of mind and body. Yes, the sound was sweet then, at eight bells, the pipe of the boatswain's mates followed by their gruff voices drawling out in loud sing-song:

"A-a-a-all the starboard watch! Turn out there! Tumble out! Tumble out! Show a leg! On deck there, all the starboard watch!"

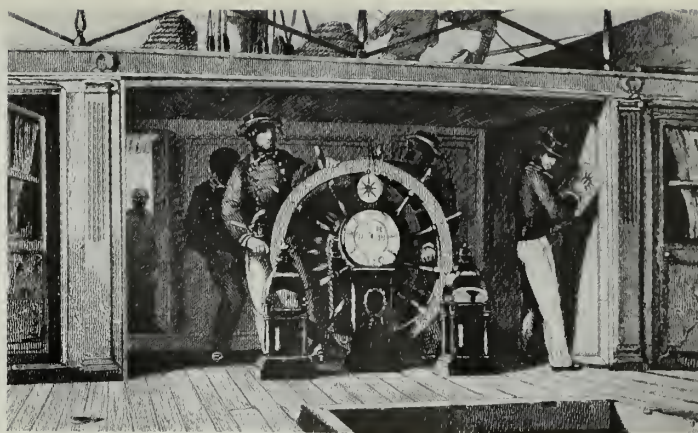
When I went below that morning with the port watch at four o'clock, I turned over to my relief a forecabin on which he would have nothing to do but drink his coffee at daylight.

That daylight coffee of the morning watch need not be described to those who have experienced the difference between the old man and the new man of before and after coffee. The galley fire of ships of war used to be started at seven bells of the midwatch (3:30 am) and the officers and most of the men who next came on duty managed to have coffee. At that time, the men had to use their rations if they wanted the coffee.

Since then, a regulation has allowed an extra ration of coffee to the crew, so that no man goes without, or works the morning watch on an empty stomach.

The morning watch was very busy. On several days of the week, the seamen washed their clothes. Then the upper deck was daily scrubbed; sometimes with the mere washing off of the soap-suds left from the clothes; sometimes with brooms and sand; sometimes the solemn ceremony of holystoning with its monotonous musical sound of grinding.

Along with these, dovetailed in as opportunity offered, in a sailing-ship under way there went on the work of readjusting the yards and sails; a pull here and a pull there, like a woman getting herself into shape after sitting too long in one position. Yards trimmed to a nicety; the two sheets of each sail close home alike; all the canvas taut up, from the weather tacks of the courses



to the weather-earings of the royals; no slack weather-braces, or weather-leaches, letting a bight of loose canvas sag like an incipient double chin.

When these and a dozen other little details had remedied the disorders of the night, due to the invariable slacking of cordage under strain, the ship was fit for any eye, like a conscious beauty going forth to conquer.

This was the Navy as the youthful Mahan saw it. Within half a century it was to emerge as the Navy of a recognized world power. A century later it was an entirely new Navy, now recognized as the world's greatest. By his writings on naval theory and the role of navies in world history, Mahan had much to do with bringing about this recognition.

CONGRESS MET an unhappy end during the Civil War. She was destroyed by the Confederate ironclad, *Merrimack*, the day before *Merrimack* fought *USS Monitor*.



VERTIGO is usually considered a condition associated with aircraft and high places, but it has come down to join the surface Navy. We recently heard of a number of cases of vertigo found in USS *Bennington* (CVS 20), and they were caused—believe it or not—by excessive orbiting. For 40 consecutive hours, while participating in antennae radiation tests off Seal Beach, Calif., *Bennington* was required to steam in tight, 2000-yard circles. During that period she completed 308 left circles and ended with most of her crew dizzy. Even the ship “suffered”—she ended up with a definite (but temporary) port list.

★ ★ ★

We’ve always suspected that things are not always what they seem to be. Now we know. Even maps and charts can’t be trusted.

For years and years, skippers plying the Pacific between Samoa and Fiji have been carefully skirting Zephyr Shoal. They needn’t have bothered. There isn’t any—and never was.

First reported in 1875, and noted in nautical charts ever since, it now turns out that Zephyr Shoal is really another shoal some 30 miles away. Discovered in 1895 and listed as Penguin Shoal, the real shoal too has been carefully dodged by mariners for years. Now a deep survey ship with a deep-sea echo sounder has found they are the same by any name. The first mariner was that far off in his navigation.

All very well. But it will be terribly disillusioning to some future mariner if he discovers on some dark stormy night that there was no survey ship—and that there *was* a Zephyr Shoal.

★ ★ ★

This is the year for living it up—if you’re careful. A check of the records shows that 1960 has seven three-day holiday weekends, the maximum possible in one year. The occurrence of seven long weekends in a single year will not come again until 1988, since this only happens during leap years in which 1 January falls on a Friday. Our Editor-in-Charge-of-Living-Longer reminds us that our chances of enjoying the next seven three-day-weekends-in-one-year will be considerably improved if we drive carefully during these weekends.

★ ★ ★

Commodore Dudley W. Knox, the Navy historian and president of the Naval Historical Society, had completed two careers in the naval service when he died at the age of 82. Probably he was most famed for his book, “A History of the United States Navy,” known to thousands of Navymen.

The commodore was born at Fort Walla Walla, Wash., where his father was then stationed as a cavalry officer. He graduated from the Naval Academy in 1896 and was first known as a tactician and strategist. He earned the Navy Cross in World War I while serving in European waters.

Transferred to the retired list in 1921, Commodore Knox became interested in Navy history, writing numerous books and articles on the subject. From 1939 to 1946 he was Deputy Director of Naval History and Curator and Officer in Charge of Naval Records and Library, Department of the Navy. In 1947 he was awarded the Legion of Merit.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

The Bureau of Naval Personnel Information Bulletin

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The Bureau should be kept informed of changes in the number of copies required.

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• AT RIGHT: READY FOR ACTION—

Flight deck crew of Antisubmarine Warfare Carrier USS *Bennington* (CVS 20) ready jet planes on the carrier's forward cats while at sea in Pacific waters out of San Diego, Calif.





man of
RESPONSIBILITY

ALL HANDS

PERSONNEL INFORMATION BULLETIN

**in this issue
THE
POLARIS STORY**



This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

SEPTEMBER 1960

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

SEPTEMBER 1960 Nav-Pers-O NUMBER 524

VICE ADMIRAL W. R. SMEDBERG III, USN
The Chief of Naval Personnel

REAR ADMIRAL A. E. LOOMIS, USN
The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN
Assistant Chief for Morale Services

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• **FRONT COVER: BELOW WITH POLARIS**—The situation is tense on board USS George Washington, SSB(N) 598, deep in Florida waters as she readies for first submerged firing of *Polaris*. RADM William F. Raborn, Jr., Director of Special Projects Office and *Polaris* Program, and an unidentified telephone talker are seen during one of the now historic tests.

• **AT LEFT: FLOATING FIELDS**—Carriermen on board USS Essex (CVA 9) watch USS *Saratogo* (CVA 60) from hangar deck as they enter the Carrier Basin at Mayport, Fla.

• **CREDITS:** All photographs published in *ALL HANDS* are official Department of Defense photos unless otherwise designated.



POLARIS: A SUCCESS

July 20 off Cape Canaveral was the kind of day the Florida Chamber of Commerce likes to say is a year-around thing. Brilliant sunshine, cloudless sky, the Atlantic mirror-smooth, gently undulating. Just three shapes bulked in an otherwise empty stretch of ocean — the experimental test ship *uss Observation Island* (EAG 154), the submarine rescue vessel *Kittiwake* (ASR 13), and the destroyer *Gearing* (DD 710).

Suddenly, some 2000 yards off *Observation Island's* beam, a plume of water geysered, and a slim-nosed shape slammed up out of the depths. It looked for all the world like some giant bowling pin, slightly out of its

element. It wasn't though.

Just above the surface, it hung suspended for an instant, water dripping from its frame. Then its blunt rear end exploded into a sheet of flame, and the blast from rocket motors turned a fair-sized circle of the ocean into a hard-as-concrete launching pad.

A few fleeting seconds, and some 11 miles straight up later, the big bird's first stage, its initial thrust job accomplished and its fuel spent, peeled away to spiral slowly downward into the sea. A wind-blown curlicue of smoke marked the trail upward as the second stage ignited.

Two minutes more and the second

stage dropped away. Now only the payload remained in flight. All guidance work had taken place during the flight's powered phase. The rest of the way, the payload would follow a ballistic path to its target.

Meanwhile, back at the launching site, the blue-green waters of the Atlantic closed once more over the hole which had been violently torn in their midst. Hardly a ripple disturbed the calm. Only a "slick" of perfectly smooth water marked the spot from whence the U.S. Navy's — and the world's — first Fleet Ballistic Missile submarine had fired a shot literally heard 'round the world. But the SSB(N) was no longer there. It had moved on.

DOWN BELOW—Crew members and RADM Raborn relax after *Polaris* firing.



THE JULY 20TH *Polaris* test shot, fired by *uss George Washington*, SSB(N) 598, was the first ever launched from a submerged submarine. CDR James B. Osborn, usn, *George Washington's* CO, summed it up neatly when he messaged the President, the Chief of Naval Operations, and others:

"POLARIS—FROM OUT OF THE DEEP TO TARGET. PERFECT."

From its launching point off Cape Canaveral the re-entry body, in slightly less than 15 minutes, hurtled more than 1000 nautical miles down the Atlantic test range, reaching a height of some 250 miles, and speeds in excess of 10,000 miles per hour. This history-making shot hit its target area with what the Navy termed "remarkable" accuracy.

Among the nearly 300 persons

ALL HANDS



STORY

(three times normal complement) jammed aboard *George Washington* when a charge of compressed gas propelled the history-making test missile from its launching tube and up through the water, was the Director of the Special Projects Office, the man known as the "father" of *Polaris*, Rear Admiral William F. (Red) Raborn, Jr., USN. In characteristically salty speech the Texas-born aviator, who has lived, breathed, eaten and slept *Polaris* since the concept was born less than four years ago, told newsmen: "There was a hell of a lot of tension, a lot of hopes, ambitions and prayers riding with that missile."

"There is now no question that we will be able to put *Polaris* on station this fall. The sooner we get an adequate number of missile submarines the better."

ADM Raborn might have added, but didn't, that it would be easy now for most people to get all wrapped up in the hoopla surrounding the successful firing, and in the new concept of warfare the FBM represents, and begin taking *Polaris* for granted. For a small, dedicated group of naval officers and civilian technicians attached to the Special Projects Office, and for the many hundreds of commercial contractors and sub-contractors, working on this project, this can never happen.

The past three and a half years will have to be ones they can never forget — for in that short span of time they have conceived, designed, built, tested and perfected an entirely revolutionary weapons system.



IT WAS ON 8 Dec 1956 that the Secretary of Defense authorized the Navy to proceed with development of *Polaris*. Actually, the story begins just a little earlier — in September 1955 — when the President approved a decision to develop a 1500-mile ballistic missile with a nuclear warhead. Both land and sea basing were to be considered.

Two months later SecDef directed the Army and Navy to get started on an IRBM program. They were told to come up with a missile which could be fired from a ship, and which would also provide a land-based alternate to the Air Force IRBM system.

Joint Army-Navy work lasted about a year. Cooperation between the two services was great, and much was accomplished which would be useful later. From the first, however, the Navy felt that the Army's big, liquid-fueled *Jupiter* missile wasn't the answer for them.

In the first place the Navy was

already envisioning a missile which could be fired from a *submerged* submarine, which meant that the missile would have to be much smaller. In addition, logistics, handling and stowage problems peculiar to shipboard, and especially submarine operations, demanded a solid fuel propellant rather than liquid fuels.

Once SecDef authorized the Navy to get out of the liquid fuel *Jupiter* program, and to strike out on its own, SecNav formed a Navy Ballistics Missile Committee to steer the project, and assigned it "Brickbat O-1" priority. There was, and is, no higher in the navy. The Special Projects Office, previously formed within the Bureau of Ordnance to work on the seagoing application of *Jupiter*, now was given responsibility for development of the entire FBM system, including the *Polaris* missile.

SPECIAL PROJECTS knew what it wanted — a solid-fueled, two-

stage ballistic missile with sufficient range to reach worthwhile military targets from available water approaches, and with a sufficiently potent warhead to destroy those targets upon delivery. And yet, those missiles had to be small enough so that many of them could be stacked in vertical launching tubes inside a nuclear submarine, without making the submarine so large that speed, maneuverability and concealment advantages would be sacrificed.

As for the submarine, it too would need many new and revolutionary features. A way would have to be found to eject the missile from its launching tube, and to propel it through varied depths to the surface. There was need, too, for an entirely new system of navigation — the submarine, even though submerged for long periods, would have to know its position to the nth degree if it was to fire its missiles accurately.

Thirdly, it was imperative that newer and better communications techniques be developed, to make it possible to stay in constant touch with a long-submerged submarine on station anywhere in the world. This was a big item — the submarine would have to be given the word to shoot, and surfacing to receive messages would negate much of the concealment and surprise factor.

With all of these requirements in mind, RADM Raborn called in the best brains available in industry, universities, and the Navy to form a steering task group. Meeting daily over the next four months, they designed the system from ground up.

Every facet — missile, submarine

launching system, support facilities, test complexes, everything — was blueprinted before, so to speak, ever a nail was driven.

ONE OF THE FIRST CRITICAL decisions made concerned the problem of handling the multitude of details connected with the program. It would have been only too easy to become bogged down with paper work and red tape. Forms and reports, no matter how well written, would not, in themselves, build missiles.

A new approach was needed, and was made. It was simple.

It worked.

It was based on the concept of a small, highly specialized "Management Team." It used facilities within and outside the military services which were already in existence and operating, rather than setting up new facilities of its own. To implement this the Navy created a Manhattan-Project-type organization which reported directly to SecNav via the Executive Member of the Navy Ballistic Missile Committee, and which had overriding priority and complete authority once approval of the NAVBMC was obtained.

NAVBMC provided policy guidance and was the sole reviewing authority for the *Polaris* program.

The original group of men assigned to SP numbered less than 25. Even today SP's total strength is only 653 persons, divided into four offices — the central one in Washington, plus three others; one on the West Coast, and two on the East

Coast, including the test group at Cape Canaveral. And that 650-plus figure includes not only officers and technicians, but clerical and support personnel as well. Admiral Raborn, refusing to let his "empire" get big and unwieldy, wouldn't add a billet unless it was absolutely necessary. He was fond of observing that "he could get more work out of one overworked man than two underworked ones." Many of the men who have been with *Polaris* from its start could breathe a fervent amen to that.

Although its director reported directly to SecNav in the military sense, and policy guidance, program review and approval stemmed from the NAVBMC, SP was administratively linked to BUORD. They furnished only administrative support and services, however. As a result, SP drew directly on a wide range of government facilities for design, development, test and training.

SP DEALT DIRECTLY with industry in other technical matters and in procurement. It was, in effect, a "Management Contractor" within the Navy itself, the first such organization ever established. It was a funnel through which military needs and development skills of all types passed into the industrial facilities that produced and assembled the actual hardware, and back into the military facilities which provided the tests and training.

The project involved some rather staggering numbers. There were about 400 major programs, and literally thousands of sub-programs.

POLARIS DUMMY is put in launching tube of USS *Observation Island* (EAG 154) during development of missile system.



These fell into seven broad categories: the missile itself, fuel development, guidance and fire control, launching and handling, navigation and communication, supporting activities, tests and training.

A tight timetable allowed no margin for guesswork or slippage. Each item had to be at the right place, in the right degree of completion, at the right time. And every item had to be developed and obtained outside of SP itself.

Core of the programming and control setup rested on simplification of four fundamentals of planning, coordination, evaluation and communication. A form was developed in SP to organize the planning job. It provided a very simple arrangement of the elements of each specific program: What was the job to be done; what would it consist of; what would it cost, and when would each step involved be completed. It also listed who must do the job; who must provide help or support, and who should know what was going on so that he could do his own job better.

SOON AFTER THE NAVY branched out on its big assignment, technological breakthroughs started coming thick and fast.

First of all, the Atomic Energy Commission found a way to reduce drastically the size of nuclear warheads. This made possible much smaller missiles, since every pound of payload requires approximately 30 pounds of rocket engine to carry it.

Next came development of a workable, and efficient, solid fuel — another must, since, as we've already noted, the Navy was convinced that liquid propellants, volatile and highly flammable, were too dangerous and difficult to handle for use aboard a submarine.

Third breakthrough, and the one which made the whole FBM idea feasible, was the development of a new navigational system which made it possible for a submerged submarine to calculate its exact position at any time without surfacing. An error, even a small one, in calculating position at the launching site would be magnified many times by the time the missile reached the end of its journey.

The new system — called the Ship's Inertial Navigation System, or



HERE'S HOW *Polaris* Missile Assembly Facility at Charleston will look.

SINS, for short — proved to be the answer.

Essentially SINS is a grouping of delicate, highly sensitive gyroscopes which register the ship's position by finding latitude and longitude, then continuously adjust that position by measuring forward, up and down and lateral movement as the ship travels through the water.

Exploratory cruises under the arctic icecap by the nuclear submarines *Nautilus* and *Skate*, and long-submerged trips by all of our atomic submarines, during which the new system was used almost exclusively, proved SINS to be effective and reliable.

WORK WAS PROCEEDING at an already-rapid pace when, in mid-

NIGHT VOYAGE — *Polaris* test vehicle takes nose cone full of instruments aloft for a night flight test.



1957, Russia fired its first ICBM, and then, in October of that year, put Sputnik I into orbit. There could be no more complacency now—the distance to our shores had suddenly shrunk from thousands of miles to 30 minutes.

The nation's leaders felt that something had to be produced, and fast, to provide an answer to the threat posed by those Soviet achievements. They asked Admiral Raborn if he could possibly speed up *Polaris* development. The Admiral took less than a week to give them his answer — he could, and would, provided the administration would accept a 1200-mile range missile instead of the 1500-mile missile then in the making. This concept was accepted, and Admiral Raborn promised to produce an operational system by 1960 — three full years ahead of schedule.

So it was accelerate an already accelerated program, flank speed ahead. RADM Raborn was given still more money, and all the backing he could ask for. His next move was to request the top men from all of the program's important contractors to meet with him in Washington. In an impassioned speech he told them what he wanted to do, and asked if they were willing to proceed on "wartime urgency with wartime dedication." The answer was yes.

RADM Raborn also had another decision to make — one which required plenty of courage. He decided to plump for immediate construction of a submarine to house and fire the missile, before he could prove that a workable missile could be produced. He was confident that his team would come through.



POLARIS PAD—USS *George Washington*, SSB(N) 598, cruises on the surface.

NO SMALL GAMBLE, when you consider that the cost of an FBM submarine is a cool \$100,000,000 to \$120,000,000. It was a gamble that had to be taken, however, if the Navy was to meet its new deadline.

To speed up even more, it was decided to take the hull of the nuclear-powered *Skipjack*-class submarine *Scorpion* already under construction at Groton, Conn., cut her in two, and insert a 130-foot section containing the *Polaris* launching tubes. So *Scorpion* became *George Washington*.

Then a lot of lead time and a substantial amount of money were saved through use of an already-developed Air Force rocket for tests leading to the final design of the *Polaris* nose cone. The X-17, slightly modified, a sub-scale re-entry shape attached, and nicknamed *Polaris*, j.g., was fired more than 20 times to heights of from 50 to 250 miles, then brought back to earth, subjecting the nose cone to blazing re-entry temperatures. Use of this off-the-shelf missile speeded design of the *Polaris* nose cone by at least a year.

FIRST TESTS OF A launching apparatus were from a tube built above ground at the San Francisco Naval Shipyard. Scores of dummy missiles of all shapes and sizes and varying construction—first redwood logs, then concrete-filled steel cylinders, finally

concrete-filled boiler-plate — were fired there as technicians strove to find out how much air pressure was required, and at what rate, to do the best job of propelling *Polaris* up through the water from varied depths.

Later, many more test launches were made from Operation Pop-up, an underwater tube anchored to a concrete launching pad on the ocean bottom near San Clemente Island.

Best known of all *Polaris* test facilities, of course, is the one at Cape Canaveral. Most of the live test firings were held there. Many of them were launched from a tube built into a huge, buried "shaker."

It was called the Ship's Motion Simulator. Somewhat resembling an outsize cement mixer, this monstrosity, when set in motion, could be made to move up or down, and to roll, heave, pitch and yaw, faithfully reproducing the action of a ship at sea.

Many test firings were also staged at sea—aboard *Observation Island*. A post-World War II mariner-class merchant ship, she was taken out of mothballs, converted by the Navy, and redesignated EAG 154.

OBSERVATION ISLAND has two *Polaris* launching tubes sunk in her deck, one of which is a tactical submarine type, and is crammed with tracking, test and evaluation gear. She also was equipped with

submarine-type navigation and fire control gear, making possible complete system tests on the surface—an important step in the chain which led to the first submerged test by *George Washington*.

Sixty-odd test firings of live prototype *Polaris* missiles were staged between January 1958 and the July 20th shot.

Of these, two were termed outright failures, 20 were rated as partial successes, the remainder complete successes. Even the failures and partial successes were successes in a way, for they revealed flaws which could be corrected or eliminated in future shots.

Mentioned earlier was the fact that one of the major achievements which made *Polaris*, in its present form, possible was the development of a solid propellant. It is this solid fuel which sets *Polaris* apart in the intermediate ballistic missile field—it gives it the power of almost instantaneous reaction.

Liquid-fueled missiles had several disadvantages for submarine application. Some have been noted—size, stowage, handling and safety drawbacks, among others. Another overriding consideration, however, was the desire to make *Polaris* capable of being launched in a hurry.

Many liquid-fueled missiles, for one thing, can't be fueled much in advance of firing. If they were, the liquid's extreme temperatures (more than 300 degrees below zero) would boil off the liquid oxygen in a short time. The fueling process is a long and complicated one. A complex maze of tubes, wiring and valves require an elaborate and time-consuming pre-firing check-off procedure, or countdown. Thus the interval between the order to fire and the actual launching of a liquid-fueled intermediate or ICBM-type missile can range as high as 48 hours—a completely unacceptable figure—so far as *Polaris*' designers were concerned.

Solid-fuel missiles, on the other hand, can be loaded and stored in their launching tubes almost indefinitely, ready for practically instantaneous firing.

HOWEVER, there were plenty of problems connected with the use of a solid propellant too, and it took years of painstaking research to iron out the bugs.

For one thing, early solid fuels



'TEST TUBE'—USS *Observation Island* (EAG 154) arrives at Cape Canaveral.

were in granular form, somewhat resembling gunpowder. As they burned, they generated such intense heat that entirely new types of metals had to be developed for the missiles' wall structure.

Another solid-fuel drawback in the beginning—its low impulse. Known solids simply didn't pack the punch to propel a 1500-mile missile, without making it so large that it would be completely unacceptable for shipboard use.

Stage by stage the problems were solved.

Long research into various combinations of chemical fuels produced a fuel with much higher specific impulse. The temperature factor, whereby some solids tended to become brittle at low temperatures and cause engine blowups, was overcome. A means of changing the thrust output of solid propellants was devised.

One of the toughest problems was licked through development of a device which could control and shut off the thrust at exactly the right instant to assure accuracy of the missile. Thousands of static test firings helped develop a combination of conventional and exotic metals and non-metals which could withstand the tremendous heat and huge flow of gases at the nozzle end of the rocket engine.

IN THE END they produced a truly push-button missile which is simple, rugged, ready and reliable.

All it needs is an igniter in the core to be off to the races.

After the first stage has done its job, and the second stage has burned exactly the prescribed length of time, the device we mentioned previously cuts off thrust, the second stage peels away, and the payload then follows a traditional ballistic trajectory to the target. It is placed in that trajectory by its enormously intricate, built-in inertial guidance system.

The launching from *George Washington* was a climax, but certainly not the end, of the *Polaris* story. For one thing, Admiral Raborn says, within two years further advances in solid fuels will provide a longer-burning, higher-thrust first stage which will up *Polaris*' range to the vicinity of 1500 nautical miles. By 1965, it will have reached 2500 nautical miles. There will be improvements in the missile's inertial guid-



SPECIAL MAIL cachet designated to ride with *Polaris* in first underwater test shot from sub is prepared by crew members of *USS George Washington*.

ance system. More work remains to be done on thrust control.

WE SAID IN THE beginning that the recent test launch from *George Washington* was a shot heard 'round the world. It has to be—and for a quite simple and basic reason: *The world is never going to be quite the same from now on.*

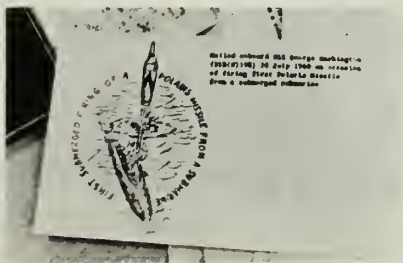
Some time this fall *George Washington* will pay a quick visit to the Naval Weapons Annex at Charleston, S.C. There civilian technicians and Navy enlisted men assemble and check out *Polaris*, whose various parts and components have been shipped in from all parts of the country.

Sixteen nuclear-tipped missiles will be loaded aboard *George Washington*, each stowed in its own launching tube, fueled and ready to go. Then, suddenly, the sub will slip quietly out to sea and submerge.

From that moment on, all would-be aggressors can only guess.

Somewhere, anywhere, plowing its swift, stealthy way beneath the more than 140 million square miles of water which make up three-fourths of the earth's surface, *George Washington* will be on station, its whereabouts known only to the

LETTER mailed from under the sea inside *Polaris* nose looked like this.



Navy and Defense Departments, and the President.

It is dangerous, certainly, to think of any weapon as *the* ultimate. And no one, least of all the Navy, thinks *Polaris* will be the final answer for all our defense problems. But you may be confident: *For the foreseeable future the nuclear-propelled ballistic missile submarine with its missiles, marks the closest approach yet made to achievement of the ultimate deterrent.*

JUST WHAT IS A DETERRENT, ANYWAY? Well, in simple terms, it's just what the word implies—it's anything that will make the other fellow stop to think twice before attacking you.

Consider it in this light. Suppose you were face to face with a character you felt fairly sure was capable of knocking your block off. He's got a club—you've got a club. You're of approximately the same size and weight. Now you may feel you're pretty tough, and that if you swing first, you can whip him. But, what if you suddenly found out that he also has a gun in his pocket, and shows every inclination to use it if you do swing. Wouldn't that put a fairly effective damper on your enthusiasm?

Polaris will pose a quite similar problem to any potential aggressor who might be tempted to launch a surprise attack against the U.S.

He may feel that he can loose massive fleets of long-range ICBMs which would destroy our fixed-position missiles on their launching pads. He may feel sure that even if some of those missiles did manage to get off the ground, because of his

knowledge of their launching sites he could predict their trajectory, and intercept them before they reached his shores. He might be equally confident of his ability to handle anything our long-range bombers and carrier strike force could throw against him.

He must fear the FBM submarines, however—because he won't know where they are in advance, they will be extremely hard to find, and almost impossible to destroy. Even if he should get one or two, he could never get them all. Most important, FBM submarines are immune to surprise attack by ballistic missiles because they are always on the move.

ASSUME FOR A MOMENT that an aggressor did launch an all-out atomic attack against us. *George Washington* would presumably be cruising submerged on a routine patrol—somewhere on, or under, the seven seas. She might be moving fast—well over 20 knots—or she might be suspended in the deep, almost perfectly still. Her small and remarkably efficient nuclear reactor will let her do either equally well.

Suddenly, orders would come flashing from Washington over a special (and still secret) communications system. Alarm buzzers would sound, and within seconds the submarine would be ready to begin a counterattack.

Her *Polaris* missiles have already been set for varied targets. As she speeds along, SINS is registering her longitude and latitude, exact to a very small fraction of a mile. Other machinery is measuring roll and pitch of the hull, and any swaying

motion caused by underwater currents. All of this information is feeding continuously and instantaneously into the most intricate of the submarine's brains—its fire control system. In the system's electronic memory is the exact geographical location of the pre-assigned target for each missile. It is constantly sending impulses to another brain in the missile itself, telling it how to reach the target from its present position.

If ordered to fire, *George Washington* could launch her 16 missiles in a matter of minutes. If ordered to stand by, she could remain on the alert and ready to fire indefinitely.

HER FREEDOM FROM SUPRISE ATTACK—hence her relative invulnerability—brings another advantage. It isn't necessary to launch *Polaris* within 15 to 30 minutes after an alert. The FBM submarine, in no danger from the enemy's ICBM's, gives the nation's leaders time for a mature survey of the situation, rather than demanding crash decisions.

It could be a means of preventing accidental war resulting from too hasty an evaluation of what appears to be an attack aimed at the U.S. But if retaliation is launched, whether swiftly or deliberately—and the FBM system offers a choice—it would be certain.

Should the order be given to shoot, the fire control officer pushes a button, and the launching tube muzzle hatch opens.

Instantly powerful compressed air propels the missile from its tube, and sends it streaking up through the water. Once clear of the water first stage rocket engines cut in, and *Polaris* leaps skyward.

As it rises it knows exactly where it is, and where it is supposed to go. Its own inertial guidance system transmits to its brain information about the immediate angle and speed of flight. The brain digests this data, and feeds its decision into the mechanism that steers the missile by deflecting the blast of gas out of the engine's nozzles—all in less than a second. Its course is now set.

As *Polaris* hurtles through the clear, cold reaches of upper space it attains a speed of about 200 miles a minute. Atmospheric conditions could affect its flight, but if so, its brain would immediately make necessary corrections.

After the first stage drops away, the second stage ignites. Not long after that, the missile's brain makes its final and crucial decision—the exact fraction of a second when the warhead should detach from the second stage, and complete the final portion of the flight by itself. The exact accuracy of the missile on target is still classified—but in less than 15 minutes from launch, the target wouldn't be there anymore.

Meanwhile, *George Washington* would be firing the rest of her missiles—and so would the other FBM submarines scattered around the world. If just ten FBM submarines were on patrol, that would add up to 160 missiles launched. The fact that most of these would inevitably reach their targets will certainly make any potential aggressor think twice.

It's little wonder that CDR Osborn says of *George Washington*: "This ship is not a problem in physics. It is an article of war."

—Jerry McConnell, JO1, USN.

OP POP-UP — *Polaris* test vehicle breaks through Pacific in tests during Operation Pop-Up in California.





SWEEPING FRIENDSHIP—USS *Valor* (MSO 472) enters Gibraltar while pulling tour of duty with the Belgium Navy.

Sailing with the Belgian Navy

USS *VALOR* (MSO 472) has completed a cruise with the Belgian Navy which she believes has made her the first U.S. warship since World War II to sail under the operational control of a foreign nation.

Altogether, *Valor* was gone from her homeport—Panama City, Fla.—for seven months, five of which she spent with the Belgian Navy. In those seven months she covered more than 24,000 miles, making stops in the Congo, Ivory Coast, Sierra Leone, Spain, England, France, Portugal and, of course, Belgium.

One of the non-magnetic ocean-going minesweepers commissioned just after the Korean War, the wooden-hulled *Valor* is powered by four aluminum diesel engines. As a unit of Mine Division 81, she is part of the Atlantic Mine Force.

Valor made her Atlantic crossing with Mine Division 82, then proceeded on her own up the coast of Portugal and Spain and through the English Channel to Ostend, Belgium, where she reported for duty with the Belgian Force Navale.

In Ostend, *Valor* was given six days to replenish and get used to her new role. The stop also gave the minesweeper's crew time for liberty and recreation. Then, as a unit of Belgian Division 191 (consisting of three American-built ocean-going minesweepers) she sailed for Africa, in company with the Belgian Naval Flagship *Kamina* (an APA type), a frigate and a coastal minesweeper.

On the way, stops were made at Lisbon, Portugal; Las Palmas, Canary Islands; and Freetown, Sierra Leone. Shortly after this *Valor* reached her destination—the Belgian Naval Base at Banana, in the Congo. (This was before the Congo had received its independence and before the uprisings which were soon to be headlined in the world press.)

During the first several days after *Valor* reached Banana she participated in fleet exercises at the mouth of the Congo River. Then, with five other ships, she steamed 87 miles up the swift Congo River to the foot of the rapids at Matadi—a once-in-a-lifetime port of call for an American ship. Here the crew went on liberty, a unique experience even for the world-traveled Navymen.

Upon her return to Banana *Valor*

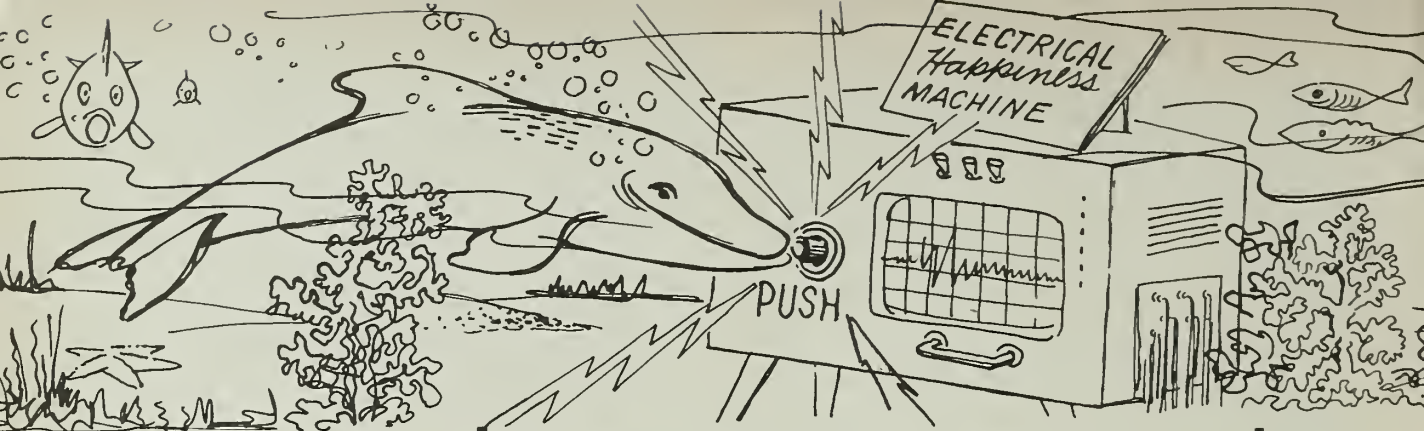
began preparing for the trip back to Ostend. The return voyage to Belgium was highlighted by a second call at Las Palmas and a short stop at Abidjan, Ivory Coast.

After reaching Ostend *Valor* spent a month there, during which she and her Belgian division held extensive minesweeping practice in the North Sea in preparation for a NATO exercise.

The exercises were followed by an upkeep period back at Ostend, after which *Valor* departed her "home away from home" and headed for Rota, Spain, via Lisbon. At Rota she rejoined Mine Division 82 to recross the Atlantic with that unit. She left the division off Bermuda, made one quick stop at Key West, Fla., for refueling, then steamed to homeport at Panama City.

MINE TALK—Students of Belgian Mine Warfare school look over USS *Valor*.





A Sailor's Best Friend

NAVYMEN HAVE LONG KNOWN that porpoises are pretty good amateur clowns. Now, scientists at work on projects assisted by the Navy are finding out these frolicsome show-offs are much more than mere entertainers.

To name just a few of their many talents, porpoises can:

- Almost literally swim circles around some of the fastest ships.
- Find their way "blindfolded" through underwater obstacle courses and tell one kind of fish from another with their own, highly-efficient version of sonar.
- Learn some things as quickly as human beings do.
- "Shift gears" to swim at different speeds on command.
- Appear to imitate a wide variety of sounds, including human conversation.
- Communicate with one another in "porpoise talk."

By studying porpoises the scientists hope to acquire knowledge which human beings may be able to use in all sorts of ways. For instance, if we knew how porpoises manage to swim so fast, we might be able to pass their secret along to the designers of ships. Or, if we could find techniques for understanding por-

poise talk, we might be able to use the same methods to learn to say, "Take us to your leader," in the languages of other planets.

Chances are whomever or whatever we meet on other planets won't be much more unusual than the porpoise.

To the uninitiated he may look just like another fish. However, he's really not a fish at all—he's a mammal classified in the same zoological order as the toothed whale. Thousands of years ago his ancestors lived on land, but he's been on sea duty so long that he now looks like a fish to most people, even though he can't breathe underwater and has to come up for air every few minutes.

IN POPULAR USAGE the name, porpoise, has come to include not only porpoises, but also bottle-nosed dolphins and assorted other mammals which belong to the same zoological family as the porpoise. (Since that usage helps keep the mammal known as the dolphin from being confused with the gamefish of the same name, it's the one this article is following.)

Seafaring men have long considered the porpoise a friend. For example, some years ago there was one known as "Pelorus Jack," which was

very well known among the sailors who had visited New Zealand, because of his habit of escorting ships as they steamed through Pelorus Sound.

In Australia, the natives of Moreton Bay, Queensland, do their fishing on a cooperative basis with the local porpoises. According to an account in the *Encyclopaedia Britannica*, the porpoises drive the fish ashore for the natives, and the natives repay the favor by spearing some of the fish and offering them to the porpoises.

Not all of the porpoise's kin are this friendly. One of his close relatives, *Orcinus orca*, the largest of the mammal dolphins, is also known as the killer whale or grampus. On occasion he gets downright nasty—especially with other animals. A group of killers will sometimes get together to attack a large whale, force its mouth open and eat its tongue. Since a male killer reaches a length of about 30 feet, and he is so ferocious, it's a good idea to regard him as a dangerous animal. However, there seems to be little evidence he will attack man.

PEOPLE WHO HAVE EXPERIMENTED with porpoises report that all of these creatures, for some reason, will let human beings do things to them





for which they would kill a fish or any other animal.

This friendliness is one of the reasons the porpoise is such a good subject for the sort of experimentation the Office of Naval Research is now backing.

Among the main items of interest to the Navy is the porpoise's swimming ability, for theoretically—at least according to the sort of theory which says it's impossible for a bumblebee to fly—the porpoise can't swim as fast as he does. Yet, when full-grown he manages to attain speeds of from 30 to 40 knots, overtaking and keeping ahead of some of our fastest ships.

One porpoise—a playful three-year-old by the name of Notty—is now doing her bit to show the Navy what the secret is.

Notty belongs to the Naval Ordnance Test Station at China Lake, Calif. Although she's just a baby, she can already do better than 20 knots when she gets the order to hit top speed. She was caught a few miles off the California coast and first introduced to her new career at an outdoor aquarium in Palos Verdes, Calif. There, she was kept apart from "ordinary" porpoises which honk horns and play water polo to entertain visitors to the exhibit.

She was trained by a psychologist from the University of California, who has taught her to:

- Take off at full speed when he signals her with a wave of his hand.

- Hold still while dyes, used as a visual aid in clocking her speed, are smeared on her skin.

- Wear a sort of harness used to carry equipment for measuring various data during time trials.

After going through the "boot camp" where she learned these fundamentals, Notty was flown from Palos Verdes to San Diego to go to work at an aircraft factory—in a window tank 12 feet wide and 341 feet long, which was built for testing amphibian planes. During speed runs in the tank experts are watching Notty closely.

As she streaks through the water, cameras record her every motion. Tiny instruments fastened to her skin with suction cups radio data on her heartbeat, respiration and temperature to the scientists who are trying to find out not only how she swims so fast, but also, how she swims so silently.

A NUMBER OF THEORIES have been advanced to explain the porpoise's speed. One of them is that skin temperature has something to do with it. (Porpoises have a rich mass of blood vessels just under the skin and, perhaps, blood pumped through these vessels may warm the water around the animal to make the water "thinner" and easier to penetrate.)

Other theories involve the possible movement of muscles under the skin to reduce the effects of friction, or the employment of turbulence as a propulsion mechanism. Whatever the explanation, scientists studying Notty are doing their best to come up with it. At the same time, they're also trying to figure out how a porpoise, apparently without any effort at all, can keep ahead of a ship.

The porpoise version of sonar is being investigated just as thoroughly as his swimming ability.

One of the researchers the Navy has aided in this field is Dr. W. N. Kellogg, professor of experimental psychology at Florida State University. He studied the echo-ranging ability of two bottlenose dolphins, named Albert and Betty, in a large pool on the Florida coast beside the Gulf of Mexico.

The pool was usually so muddy that the average visibility in it was only about 20 inches. Yet, by bouncing sound pulses off of objects—with a noise that sounds like a creaking door—they could identify and locate the objects through their echoes. The porpoises performed all sorts of feats to show off their sonar.

IN ONE SERIES OF TESTS the 55-by-70-foot pool was studded with metal poles which, if touched or struck lightly, gave off a bell-like ring. During their first 20-minute session



of swimming through this maze, the two porpoises together brushed the poles a total of only four times. (Apparently these contacts took place when the porpoises' horizontal tail flukes touched the poles after their bodies had already passed an obstruction.)

In the second session with this obstacle course the porpoises made even fewer contacts with the poles, and after that they negotiated the course in test after test without touching the poles at all. Even in the dark, the porpoises swam all over the pool without touching the obstacles.

Another set of experiments was based on the porpoise's preference for one kind of fish (spot) over another (mullet) at snack time.

At first, Albert and Betty were fed mullet, but they soon refused to eat them. They did like spot, and ate them readily, so the researchers used the two kinds of fish as a means of testing Albert's ability to judge target sizes with his sonar. During each of these tests a 12-inch mullet and a six inch spot were silently inserted into the water at the same time by someone hidden from Albert's view behind a plywood screen.

After a few exploratory sessions in which Albert learned that the smaller fish was always the spot, he headed unerringly for it every time—no matter how dark or muddy the water was.

The conditions throughout these experiments were so carefully regulated that the only logical explanation of the porpoise's performance was his echo ranging ability—not the use of any of the senses human beings employ in such situations.

WHILE DR. KELLOGG has been putting Albert and Betty through their paces, Dr. John C. Lilly, has been studying the porpoise from other angles.

In experiments being carried out

in the Virgin Islands with an assist from the Office of Naval Research, Dr. Lilly is looking into the porpoise's intelligence and his language, which is made up of assorted buzzing, whistling, rattling and squeaking noises.

From what he has already learned about these animals, the doctor is convinced bottlenose dolphins are the most intelligent beasts on earth. He ranks them far above the chimpanzee, which is generally considered the brightest land animal, and way ahead of such sentimental favorites in the animal IQ derby as dogs, cats and horses.

A dolphin's brain is larger than that of a human being, and his cerebral cortex, or gray matter (the seat of consciousness where the higher mental functions take place), is apparently just as complicated.

The porpoise can learn some things just as quickly as a human being does, and much faster than any other animal can.

In one experiment dolphins learned in a single demonstration to operate a device it takes a chimp dozens of tries to master. The device consisted of an electrical apparatus which gave the animal a pleasant tingle whenever he worked a switch correctly. The gadget gave the dolphins such a charge (pun intended) that their eyes would light up and the muscles around their blow holes would break into a sort of smile whenever they got their electrical treat.

When this was used as a reward the dolphins would do their darndest to earn it.

DURING ONE SESSION the apparatus broke down, but a tape recorder being used along with it kept on running. When Dr. Lilly played the tape back he heard himself read the footage on it—323. His voice was followed by another—the dolphin's—which repeated the number in a rapid high

pitch that sounded something like a phonograph record being played too fast. After that came recognizable imitations of the hum of a transformer and the noise made by the doctor's movie camera. The dolphin associating these sounds with the pleasure it got from the electrical pulse, was trying to set off the device again.

Besides imitating sounds, the porpoise can say some things of his own. One of his "words"—a very shrill whistle apparently means, "Help!"

One day, when two injured animals were put in a pool with two healthy ones, the hurt porpoises gave this whistle, and the two healthy ones immediately rushed to the rescue, helping the "casualties" to the surface so they could breathe. All through the operation rescuers and rescued kept up an almost steady exchange of porpoise talk.

Another typical demonstration of the porpoise's ability to communicate involved a bit of porpoise baby talk. This occurred when a young porpoise on an exploratory cruise around his tank, found himself pointed into a corner and didn't know how to get out of it. Junior emitted some frightened squeaks and squeals, and in a jiffy Mama was at his side guiding him out of his predicament.

All of this just goes to show that porpoises are pretty smart. As a matter of fact, people who have trained them say these unusual animals sometimes get ahead of their human instructors when being taught.

At outdoors aquariums in California and Florida porpoises quickly learn to perform all sorts of tricks to entertain the tourists. With very little coaching they can even play water polo.

So far, people are in most cases managing to look smarter than porpoises. However, the Navy is convinced that no matter how smart we are, we can still learn a lot from these smiling sea creatures. —Jerry Wolff.





IN THE SWIM—Navy SEALs of Patrol Squadron 19 test new anti-exposure suits in cold waters of San Francisco Bay.

How to Swim Without Getting Wet

The weather wasn't exactly right for swimming—in fact, it was cloudy and cold. But the 70 men of Patrol Squadron 19 were dressed for it—in the new MK-4 anti-exposure suit.

The test started with members of the squadron boarding an NAS Alameda crash boat which took them out into San Francisco Bay. Each of the men was to jump into the water and swim to a life raft to await rescue.

When a P2V *Neptune* search and patrol plane appeared, the men set off orange smoke signals and flares. After a couple of identifying passes, the patrol bomber radioed their position to a rescue helicopter. The chopper arrived in a few minutes.

Other pilots and crewmen who had watched the rescue from the beach, now joined in the exercise.

They entered the water to test their suits. They found the outfits kept them warm, dry and buoyant.

The exposure suit consists of an insulating liner and an outer suit of waterproof material. The one-piece liner is quilted rayon-covered insulation with knitted wristlets and anklets and is tailored and sized for close body fit. The outer suit has elastic wrist and neck seals as well as boots and gloves. Although the outer suit is waterproof, it allows perspiration to pass through.

When dressed in the MK-4 suit, men are safe for at least an hour in water at freezing temperatures. If the head and hands are protected, they can survive even longer. On land, the suit will give longer protection, even in sub-zero weather.



NO BIKINIS HERE—New suits kept the airmen warm and dry until copters air-lifted them from the bay to beach.





Sixth Fleet's Sailors

UNITS OF THE SIXTH FLEET, including flagship *uss Des Moines* (CA 134), the super carrier *uss Forrestal* (CVA 59), several destroyers and other ships have sailed through the Dardanelles in recent months on good-will visits to our Middle Eastern allies in Turkey. As the ships dropped anchor and made ready to go ashore at Istanbul the ancient and modern buildings, minarets and mosques lining the Bosphorous pointed up the fact that this was where the West had met the East for centuries.

Turkish citizens lined the streets while the Sixth Fleet Band, playing American and Turkish songs, marched to the Monument of the Republic and Barbarossa's tomb where the Navy held wreath-laying ceremonies.

On one visit ancient Turkish military pomp and grandeur boarded *uss Forrestal* as citizens of Istanbul put on a colorful show demonstrating aspects of their heritage. Carrying on in the proud tradition of the famed Janissaries, the Mehterhan band saluted the Sixth Fleet sailors with the unusual music that spurred this historic military unit into battle and helped establish its reputation on the battle field. In addition, folk dancers entertained





Tour through Turkey

on the hangar deck with a variety of interesting dances from all parts of Turkey.

During the visit, traditional military honors, ceremonies, and visits were exchanged between U.S. Navy personnel and Turkish military and civilian dignitaries. The ships departed with full military honors taking with them Turkish military leaders for a two-day look at Sixth Fleet ships in action.

Clockwise from upper left: (1) Sixth Fleet Band plays for Turkish people as it marches through streets of Istanbul. (2) Liberty boat heads for Fleet landing at Istanbul, Turkey. (3) Turkish Janissary band performs on hangar deck of *uss Forrestal* (CVA 59). (4) Wreath is placed at the Monument of the Republic as the Sixth Fleet band plays U.S. and Turkish National Anthems. (5) Turkish Navy chief flashes signal from training center on Yassıada Island. (6) Honors are rendered Turkish flag during color ceremonies on board *uss Forrestal*. (7) Sword dancers put on colorful dance for Navymen in carrier's hangar deck. (8) Turkish jets assigned to NATO sweep the sky over centuries-old mosque in Istanbul.





ROUND TABLE—NESEP students hold panel session on leadership as part of their training as potential Navy officers.

NESEP UNIVERSITY

OUR MISSILE-MINDED NAVY has an ever increasing need for men skilled in electronic system engineering. To help furnish these men, two universities in the United States offer a bachelor of science degree in this subject to Navymen studying under the Navy Enlisted Scientific Education Program (NESEP).

Besides these two universities, 20 other colleges throughout the country offer NESEP students courses in physics, chemistry, aeronautical engineering, chemical engineering or

courses in nucleonic engineering.

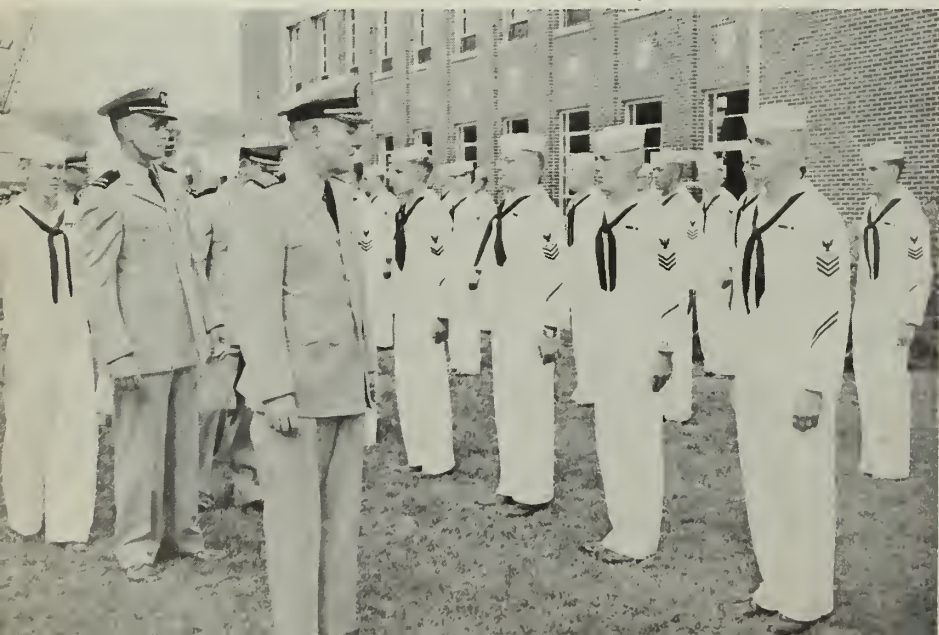
Purdue University is typical of the colleges at which NESEP students attend classes. It offers NESEP students a baccalaureate in electrical engineering with a major in electronics system engineering.

Currently there are 130 men enrolled in the program at Purdue. Unlike most of the regular college students, NESEP men attend classes throughout the year. An additional 78 students will join the 130 for the fall term at the university.

THE NESEP PROGRAM in the Navy dates back to 1956 when 50 men from the Fleet were selected to participate in a pilot program. At that time the program was known as the Navy Enlisted Advanced School Program. These 50 selectees came from ships, squadrons, schools, missile groups and testing facilities. Two years later the present NESEP plan was developed.

Twenty-two of the 78 NESEP students scheduled to start at Purdue this fall are from the original 1956 pro-

NAVY TIME—Navy students at Purdue stand inspection. Rt: Chief W. L. Twining poses with wife, children, books.



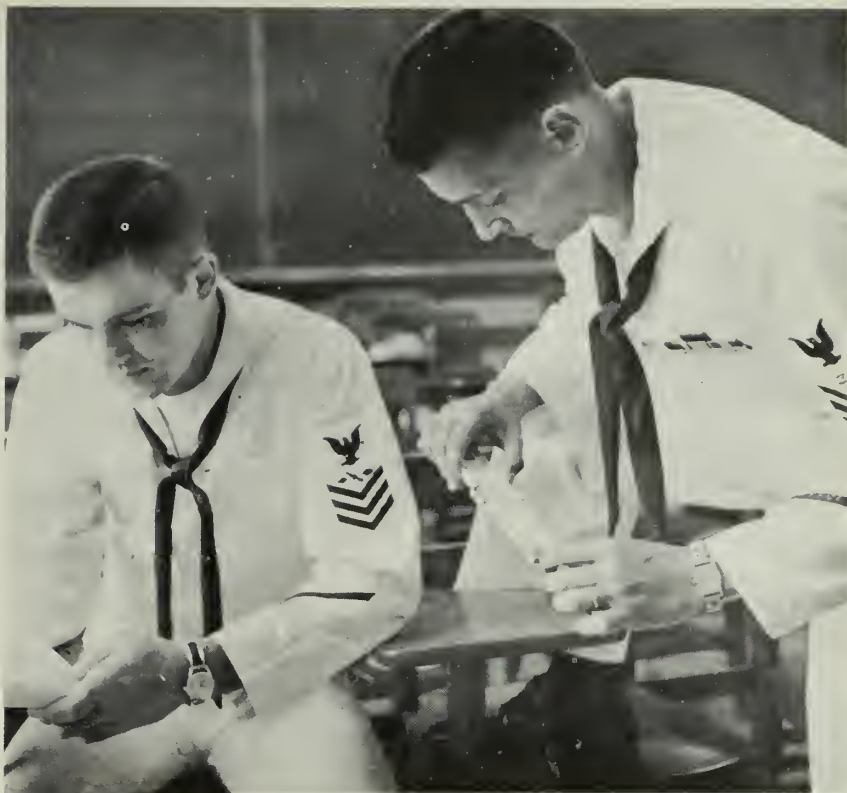
gram. They spent two years in college, have gone to sea for two years, and are now back to finish their college course. At first the program consisted of two years of college, followed by two years in the Fleet, before returning for the final two years. Under the current program, however, the men stay in school for four years, unless they complete the requirements for a B.S. degree sooner.

Since the men in the NESEP program are potential naval officers, their leadership training is met by seminars at which the men try to come up with solutions to certain leadership situations. Discussions might range from prisoner-of-war experiences and the code of conduct to the operation of a division in a ship that earns an "E."

The individual drive and mature attitude of NESEP Navymen have attracted notice among the Purdue faculty. As a group, they have achieved grades that top those of almost every other group on campus. The leaders of the program at Purdue are particularly proud of one of the first graduates in 1958, Ensign Gerald A. Harkless, who was listed a "distinguished student" for four of his five semesters there.

MOST OF THE NAVYMEN at Purdue are married and have families. Although they average three children to the family, one of the men has six children. Being a family man does not prove to be a handicap, according to these Navymen, in their studies or career.

A Navy student organization called the Upsilon Sigma Nu, Engineering



SLIDING INTO ENGINEERING—Need for men skilled in electronic system engineering in today's Navy led to Navy Enlisted Scientific Education Program.

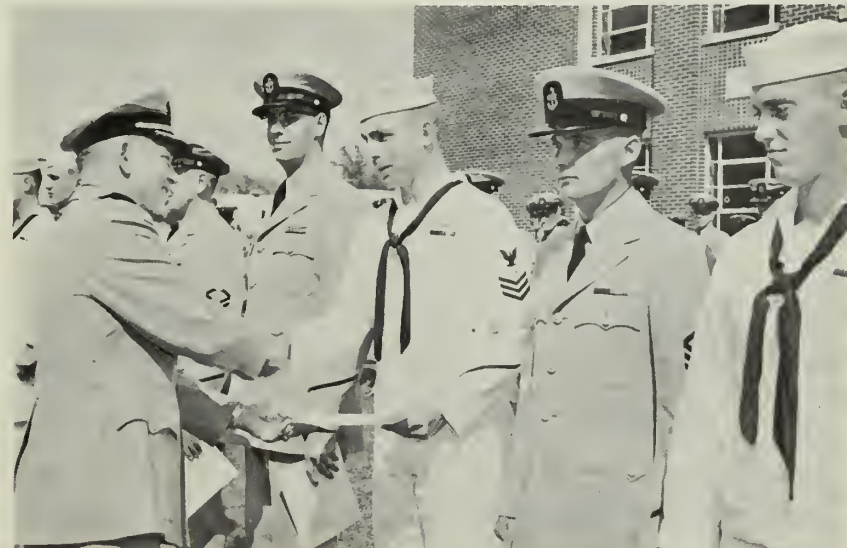
and Science Association, gives the men an opportunity to discuss mutual problems and to exchange ideas and sea stories. It also gives them an opportunity to participate in student activities as a Navy group. The wives have also formed an auxiliary to Upsilon Sigma Nu.

Besides this group, the students still belong to another organization — the U.S. Navy. While in college they

continue to stand inspection and advance in rate. When a student receives his degree he is ordered to the Officer Candidate School, Newport, R.I., for officer indoctrination. On completion of that training, he receives a commission as Ensign.

Then he's ready for the next step of an NESEP Navyman, putting his knowledge to work in the electronic, supersonic, nucleonic Navy.

IN STEP—Opportunities for advancement in rate remain open. Here, L. J. Perry receives his appointment to CPO.



They Signed Up

No matter what the time, place or condition, recollections of boot training can almost always evoke a nostalgic sigh for the "Good old days"—after they are over. In this account, R. R. Myers, EMC (Ret.) looks back upon the days of his training at Newport, R. I., in the years that Newport was the principal training station that provided the Fleet's needs of that period.

Recent (within the past 20 years) boots will be able to detect certain similarities and differences in training methods of their day and those of 50 years ago. Present day instructors will be happy to know that they are carrying on a fine old tradition when they compare today's crop of recruits with the Old Navee.

IT WAS JUNE 13, 1910. The place, in the shadow of Old City Hall at Philadelphia. An old time brewery truck loaded with quarter-barrels of beer and ale moved down Market Street behind two huge draft horses and was lost in traffic. Trolley cars of the Philadelphia Rapid Transit clattered and rattled both east and west on the main artery. Broad Street Station was disgorging thousands of commuters who were quickly absorbed in the metropolitan life of the city.

At the Navy Recruiting Station, across from City Hall, erstwhile re-

cruits were beginning to gather for an early morning interview. This is the picture as I remember it that June morning 50 years ago.

We ventured severally and in pairs into the unknown, beyond the blue recruiting flag.

Came noon and we learned that three of the inquisitive ones had passed the physical examination and had otherwise qualified for enlistment and were duly sworn in—and there began my first enlistment.

We were informed that we would leave for New York on the afternoon train and at the appropriate time we scurried up the steps of Broad Street Station to train level and the waiting train. It was one of the Pennsy's fleet of fast trains traveling between Philadelphia and New York and leaving the terminal every hour on the hour. With its giant steam locomotive panting impatiently at the head of a long line of cars, the express looked like a long streak of polished varnish. With this one long look, we scrambled aboard and submerged deep in our seats.

LEAVING BROAD STREET STATION, we swept through miles of crowded rails—a vast network of steel—then on to open country. The big Mogul is highballing it now and, after brief stops at Trenton and Newark, we are rolling across the Kearney meadows—to Jersey City, the New York terminus for the coal-burning "fireball." At the Jersey City Terminal, we board a connecting ferry for downtown New York and are treated to our first view of the waterfront and skyline of the tip of Manhattan.

Tug boats, work horses of the harbor, are everywhere; shoving, pushing and towing. Ferries scurry back and forth in endless procession. Surface craft reigned supreme. It was in the days before tubes, tunnels and bridges under and over the lower Hudson. Landing in Manhattan for the first time was an experience never forgotten. Farm boy lands in big city and looks in awe at the surroundings. West Avenue, along the docks, teemed with traffic of every description.

Horse cars, driven by brass-buttoned, blue-coated, mustachioed



RECRUITS learned seamanship on board USS Cumberland when it was moored at pier next to barracks. Below: A lesson in fueling.



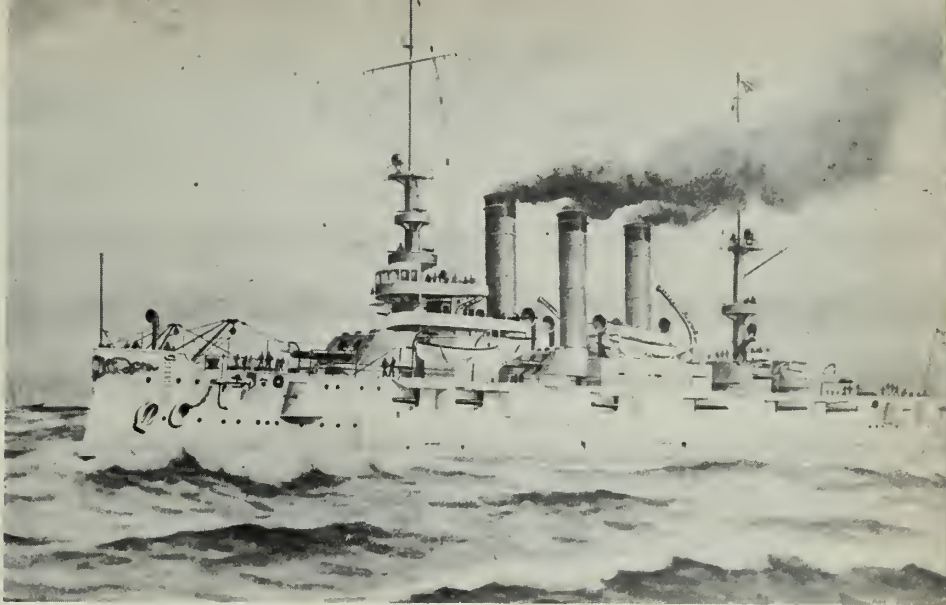
in 1910

drivers, moved cautiously through the bedlam. Looking east toward Broadway on Courtland Street, we saw "L" trains thundering north and south on their elevated structures, then disappearing in the canyons between tall buildings. Dockside, we looked for and found the pier for the Fall River Line.

Alongside the dock lay *Commonwealth*, a graceful white steamer plying the inland waters between New York and Fall River, stopping at Newport in each direction. This gay old craft of the turn of the century was to provide transportation on the second leg of our journey, ending at Newport, R. I., location of the Navy's prominent training station. Aboard the "liner," we met and joined forces with the New York contingent of recruits and also a draft from the middle west, all bound for Newport.

WE NOW HAD A COMPOSITE FORCE of about 15 recruits and were about to feel the first effects of the proverb, "in unity there is strength," because we immediately banded together to cope with any adversity in our path.

We thrilled when we felt the ship's engines vibrate below decks. We watched critically every move as her lines were cast off—were we not destined to be future seamen? We joined with other passengers on the upper deck to see *Commonwealth* slip gracefully astern. We could feel the power of her screws as the ship's navigator and helmsman brought her bow around between a Staten Island Ferry and an Erie Railroad tug. We watched the gay old craft swing smoothly around the Battery and into the East River. She was



OFF TO SEA—Training ended with call for men needed for variety of ships preparing for European cruise including the flagship *USS Connecticut*.

now headed for Hell Gate, Long Island Sound and points in Narragansett Bay.

As a group we draftees congregated on the fo'c'sle. One enlistee from Gotham volunteered to act as official guide and informant. He was good, pointing out principal buildings and places of interest till some one shouted, "There's the Brooklyn Navy Yard." And another shout, "Look! There's the *Florida*." Sure enough, there was the yard, its various activities extending deep into the roadstead, and at the fitting-out dock was *Florida*. Representing the latest in battleship design, *Florida* was scheduled to join the Fleet in 1911. She did, and old-timers remember her as one of the best battlewagons of the Atlantic Fleet.

Our ship knifed its way up the East River, glided under the Queensboro Bridge, steamed impassively past Blackwell's Island, turned sharply through Hell Gate and entered Long Island Sound. From there on it was smooth sailing. The Sound was sun-drenched at the hour with

the shadows of evening creeping in. Soon, beacons along the Connecticut shoreline would be emitting their night signals. The night was clear. The water smooth. Cool fresh air swept over the steamer's topside. A quartermaster struck the hour on the ship's bell. A calm quietness settled over the upper decks.

WE ARRIVED AT NEWPORT at about 3:30 A.M. and tied up at Long Wharf, a long wooden dock supported by creaking, worm-eaten piling. Fifteen sleepy recruits stumbled over the gangway to be greeted on the dock by a cox'n in Navy blue. He was our reception committee and, after checking our papers, he directed us into a 35-foot steamer.

In a matter of minutes, we were headed for the Receiving Dock at Newport Training Station. We were mustered, the first of many such summonses which were to follow, and issued black coffee, presumably to wake us up. We were told to strip and head for the shower. We did. The water was steaming hot.

NOT SO DIFFERENT—Recruits stand formation in front of 'B' barracks at Naval Training Station, Newport, R.I.





GRADUATES of Newport pose on USS Connecticut in 1908 with gun target.

We were provided with a slice of salt water soap for a "smooth, soft lather" and when we were thoroughly soaped, the steam was shut off and water colder than Baffin Bay cascaded down over our shoulders. Our breathing was short, but if Swedes could take a cold bath, so could we, so we stayed under the icy deluge until ordered out. Rubbing ourselves dry, we were escorted into an adjoining room where one by one we stood in the raw in front of the issue room door.

Shoes were issued one size too large. If one kicked he got a larger size. Our first outfit, in addition to the customary whites, underwear, towels, etc., included a plug of Navy regulation tobacco, a corncob pipe,

a tooth brush—with no dentifrice—and two bars of salt water soap for the manifold purpose of the shower, washing clothes and scrubbing decks—we were really prepared those days.

With our outfits received and checked off, we dressed. I don't remember how, but we dressed and if any band of recruits looked like South Sea beachcombers, we did.

OUR GARMENTS were big and free flowing. Our white hats had a four-inch, soft horizontal brim with a small rolled edge. Our shoes were large and roomy. I think we could have passed for escapees from the penal colony at Devil's Island.

We stuffed our gear into the

depths of a mattress cover and assembled for the march to Barracks "A" where we were to suffer penance in quarantine for the customary 21 days. With mattress cover slung over our shoulders, the march turned out to be a rabble.

Swinging by *Reina Mercedes* in route step, our heavy galoshes scratching and scuffing on the driveway, we were subject to the hoots and howls that greeted recruits daily. However, the march was on and around the turn in the road a group of white buildings loomed.

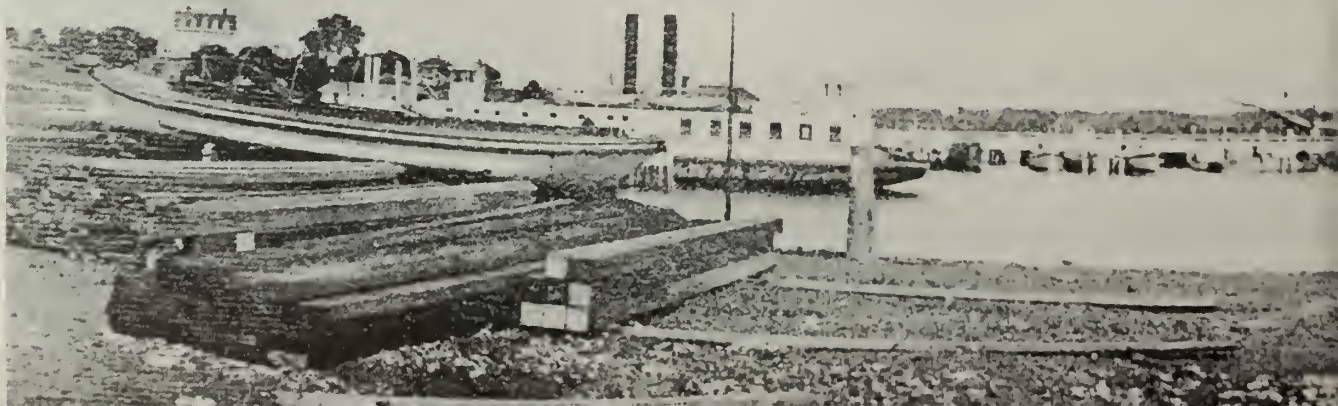
It was our destination, Barracks "A."

Barracks "A" consisted of a number of two-story, square, brick buildings. Each building housed a company. Each floor a section—in those days a company consisted of two sections and each section three squads. Also on each floor (or deck) were mess tables, billet hooks for hammocks, jackstays for sea bags, a head and a shower room—a combination mess hall, dormitory, recreation room and lavatory.

In the area was the usual grinder, or drill field, where we were to spend grueling hours in the School of Infantry and in setting-up exercises. Bordering on the eastern perimeter of the restricted zone was an estuary separating the island from the mainland.

To the south, and bordering on the channel, was the "smoke house," a pavilion de luxe set aside for smoking, tobacco-chewing and informal discussions (bull sessions).

WAY BACK WHEN—USF Constellation, USS Boxer, and ferry Inca are shown in old photograph of Newport harbor.



WE WERE BROUGHT to a halt in front of our designated barracks and received the good news that breakfast would be served, after which we would receive further instructions. There was no waiting. Morning chow consisting of ham and eggs was already on its way and, having been on the move since 3:00 A.M., we were ready for anything that looked like food—the calories from the black coffee had long since been burned.

After chow our company commander put in an appearance and introduced himself. He briefed us on what he expected from his company and what we should expect from him. He said his name was Leopard and that he was a Chief Master-at-Arms, which at the time meant nothing to us—we would learn more about that rate later. He also said he was a product of the Spanish-American War and that he went around the world with the Fleet on the *Maine*.

"That ship was plenty tough," he said. "Now the Navy is getting soft." (He didn't amplify further on his opinion that the old rugged Navy was on its way out.)

During this semi-informal discussion, the barber arrived. He was a little old man with a mean look in his eye. He probably learned the art by shearing goats. His barber's chair was a bench, but that probably made no difference in his work; he sheared us unmercifully and took great glee in our appearance as he would nudge us off the torture seat.

Next came the doctor and his staff. We coughed, bent over, inhaled, exhaled, had our eyes rechecked and performed a few calisthenics. When he was through, two of our group were standing aside—separation of sheep from goats had already started.

AFTER OUR MEDICAL EXAM, Chief Leopard took over. Our first instructions were stenciling and rolling our clothes, then packing a sea bag—which we were going to use for a long time—lashing a hammock with the regulation number of turns and hauling taut on the jackstay.

We were told what we could do and what not to do. Cigarettes, we learned, were taboo for all apprentice seamen. Apprehension for this violation of regulations could be punishable with five days in the hoosegow. (I never knew of the five-day penalty being inflicted but I saw many lesser punishments carried out.) Swimming in the back channel was a breach of etiquette; we had not been issued swim trunks in our first outfit, and this was considered out of bounds. We did, however, swim in the estuary. After colors, when darkness took over, we had many a night's gambol in the tidal waters. We were not to leave the restricted area at any time without permission, and then only under escort. This ruling may have been observed. I don't remember any one who had any desire to leave the area in the garb of original issue.

We were issued old rusty Win-

chester rifles for drill purposes. The bolt action and firing mechanism had long since been removed but the stock and barrel were still intact, making them perfect pieces for our rudimentary drill periods. There was time for a short elementary formation. Petty officers were selected and the orientation was complete.

Taps found the entire company in the sack after several attempts to swing into and remain a part of the canvas contraptions. A few of the hammocks were hauled taut but, by and large, on this first night, they were mostly swung in a big, long, sway-back arc, defying rest or sleep in any and all manners.

REVILLE WAS AT 5:00 A.M. and we learned to hit the deck with a snap, lash and haul taut our hammocks and head for the shower in five minutes. After the usual hot and cold drenching, we gathered at the mess table for hot cocoa to warm our chilled blood.

Then, on hands and knees, we formed a line across the barracks floor and with regulation hand scrubbers—and salt water soap—we scrubbed and cleaned every inch of the exposed area.

With pre-breakfast morning chores completed, we would retreat to the smoke house. Particles of Navy plug were cut, ground in the palm of the hand and packed into the bowls of corncob pipes. The morning smoke fest was on.

Daily routine at Barracks "A" changed but little. Without benefit

WHERE WE TRAINED—At the advent of WW I the Navy mushroomed around the salty core that trained at Newport.





SAILING, SAILING—Old timers at Newport trained on board *USS Constellation* and the trim brigantine *USS Boxer*.

of music (the band and bugle squad would come later), we learned the manual of arms, how to march and drill, box the compass and the hand semaphore.

Then we would march and march and march. Came 4 July, our first holiday. We learned from a passing apprentice from Barracks "C" that Jack Jefferies had lost the heavy-weight boxing crown to Jack Johnson. The king of pugilism was finally defeated. We also had our first turkey dinner with all the trimmings.

Events of a different nature were now unfolding. The next day, being the fifth, was traditionally pay day. A pay list was posted on the bulletin board and following each of our names was the same amount, \$1.00. This, we were told, was an "advance." Regulations required a month's pay to be carried on the books; we were actually in debt until then. So much for the financial remuneration.

Like all good things, we reached the end of quarantine. We assembled in the front of our receiving barracks for the last time and in high spirits executed a squads right and marched with precision to our new quarters—Barracks "C."

AT OUR NEW BARRACKS we were to find numerous changes. Reveille was still at the early hour of 5:00 A.M. We continued to hit the deck sharply at the first notes of the bugle, but the morning shower had a humane touch and the ice-cold deluge was no longer a required finale. We filed into the mess hall from formation three times daily. Battalion drill was executed to the tempo of a marching band and we had real rifles, Krag Jorgenson—the same pieces we would use on the small-

arms range later in our training period. We had movies twice a week, a large wash room, a swimming pool—and liberty twice a week.

Ah, liberty! Those were the good old days with a walk down Thames Street and Long Wharf. There were Dunn's, Silver King's and others. But those entertaining establishments were not for us. Anything stronger to drink than Coca Cola or Moxie was outlawed for apprentice seamen—and the order had teeth. We could no more put foot into a saloon than we could fly. (And there were no planes.)

We could, and did, amble over to Easton's Beach where, after leaving our whites in back of a sand dune, we would enjoy a dip in the surf. (This feat was usually accomplished by donning our swim trunks prior to going on liberty.)

Back at the station we maintained a full schedule every day. Our appearance improved as we dressed with a touch of pride. Stitching our floppy white hat brims was an asset. Fitting our oversized whites was an improvement. The barbers took their duties more seriously and cut away the husk and leveled off the trenches that we brought with us from Barracks "A."

We were standing erect and marching with distinction when in formation. We were gaining the knowledge that every apprentice seaman should have.

ONCE A WEEK there was a regimental review on the green in front of the War College. High brass from the facility and the elite from Newport society were the guests of honor. Occupying the spotlight, or an added attraction, was Ike Bernstein with his Seamen Guard. They

had developed a silent drill of precision movements that always drew unlimited applause from spectators.

In addition to training, which called for us to be quartered at station barracks, we also had at our disposal for brief periods three training ships.

First, the old *Constellation*, that venerable old frigate of Captain Truxtun's day, which needs no introduction to thousands of apprentice seamen who crossed over her gangways during periods of indoctrination. But why we served on board her is somewhat of a mystery. Maybe it was to get the feel of a ship's deck underfoot. It might have been for the purpose of recognizing the odor of tar and rope on the topside and the musty smells below deck. But, whatever the reason, we were quartered aboard her for a week.

During this time we got our first lessons in holystoning. It was our first experience where chow was served between decks which were crowded and not too well vented. We had our first instructions in ship's etiquette and courtesies traditional to the Navy.

At first call for hammocks at night we lined up alongside the nettings facing aft until "pipe down," at which time hammock stowers would pass out our sacks and we would scramble down the hatches for the best billets below. And, lest I forget, I remember the daily working parties that we furnished for miscellaneous work around the docks. In other words, we fulfilled a statement of an old ship's chief at our first muster on board. He said, "You can forget drill for a week; you are here to work." And work we did.

OUR NEXT SHIPBOARD DUTY was in *Boxer*, a trim little brigantine

built at Portsmouth Navy Yard and equipped for sailing only. She had an over-all length of 108 feet and a displacement of 346 tons. We had a "ball" aboard her during our stay, learning the duties of the stations assigned us.

Our itinerary did not carry us far. No whistling gales or raging seas disturbed us as *Boxer* pursued her daily schedule on the placid waters of Narragansett Bay. At night we would moor to a buoy off one of the islands. In the morning we would slip our mooring and sail again.

Each company had one week in *Boxer* and then on to *Cumberland*—the third and last training ship—which did not sail. *Cumberland*, which did not sail.

Our Tennessee and Kentucky recruits had long been itching to pull a trigger. Company commanders vied with each other in building up highest and best individual and company scores. Instructors on the firing line were careful and thorough as they prepared each of us for that first shot.

We fired. Looked eagerly at the target. Confirmed the effects of that first "squeeze" on the trigger and settled down for the match. To us, this was Camp Perry or its equal. We were just as proud. We fired the full course for pistol and rifle. Our sidearms were Colt .45 caliber with swing-out side ejector. Our rifles were old reliable "Kraggs," a little heavy, but good pieces—but that was yesteryear.

With the completion of small-arms practice, we had little to do but polish off the rough edges and get ready for a call to sea. Most of us wanted a battleship and that's what most of us got.

The Fleet was preparing for a trip to European waters. Draft calls came in and dug deep into the ranks of the trainees. Drafts went to every ship in the Fleet from the flagship *Connecticut* to the beef boats *Culgoa* and *Celtic* and that was finis to our training.

Many old-timers like to look back on the days when Newport Training Station was an important segment in our Navy. At the advent of World War I, the Navy mushroomed around a modest nucleus into a hard-fisted, tough, fighting organization. Some of us may be egotistical enough to credit much of that success to the finale of this discourse in which: "We Trained at Newport."

—R. R. Myers, EMC, USN(Ret.).



CAN DO—B. Munds, SN, (left) and S. Cheves, RM3, make use of shop.

Auto Hobby Shop Has Double Aim — Fun and Safety

Accident-free driving doesn't just depend on how safely you drive, but also what you drive. And if you're in the Long Beach area you can make sure that what you drive is safe by taking it to the Forces Afloat Auto Hobby Shop.

This well stocked shop is administered by the Commander, Mine Force U.S. Pacific Fleet, and supported by all the Pacific Fleet's type commands and the Long Beach Naval Station. During the past quarter, more than 3000 Navy-men used the Auto Hobby Shop.

Located on the Long Beach Naval Station, it is available to all Navymen afloat or ashore in the area.

Trained Navy personnel from the sponsoring commands take turns helping with automotive problems, and they don't mind getting their hands greasy doing it. Currently lending a hand at the shop are: Chief Engineman L. W. Burke,

Petty Officer-in-Charge from COM-INPAC; L. S. Stevens, EN1, CRUDESPAC Flag Allowance; E. M. Moore, EN1, *uss Hector* (AR 7); and J. O. Seaman, MM3, *uss Kearsarge* (CVS 33).

These men suggest that if you visit the Auto Hobby Shop, you will discover that tinkering is relaxing and an economical form of recreation. And there's no charge for the pride you have in having done a job yourself.

Safety, however, is perhaps the most important product of the Forces Afloat Auto Hobby Shop. Even the best driver is dependent on the mechanical condition of his car.

Whatever the job that needs to be done — including a major overhaul — it can be done quickly, economically and reliably at the Auto Hobby Shop. The tools, materials and guidance you may need are available.



AUTO HOBBY shop helps Long Beach Navymen keep their cars shipshape.



Training on a German DD

THE U.S. FLEET Training Group down in the Caribbean found duty flavored with a German accent as they recently squared away the crew of the Federal German Navy destroyer *Zerstorer 5* (D 179) with five weeks of shakedown training.

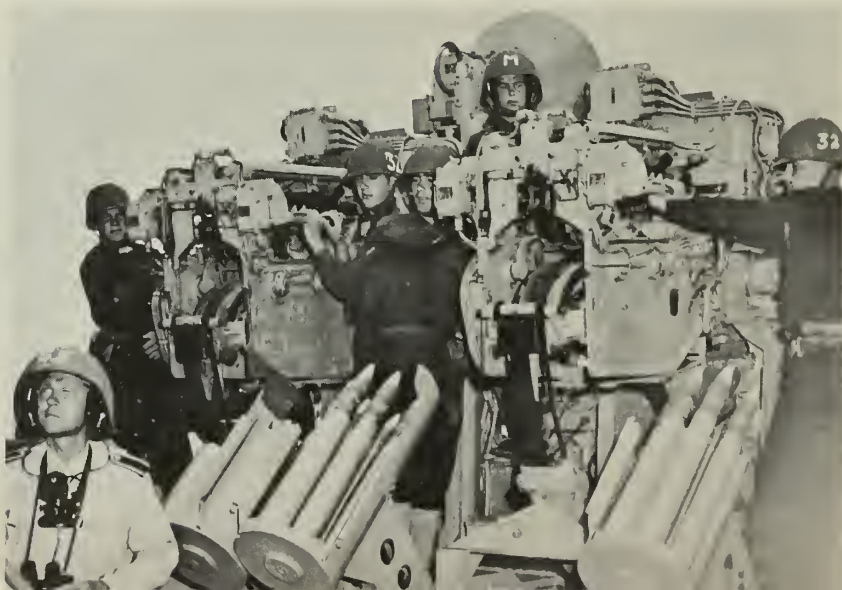
Zerstorer 5, the fourth German DD to train with the FTG, is the former *uss Dyson* (DD 572) which was modernized at Charleston Naval Shipyard prior to recommissioning and turning over to the German crew.

The shakedown training for the Deutschland sailors of *Zerstorer 5* was identical to that given United States destroyermen, consisting of vigorous and extensive exercises in all phases of DD operations. This included seamanship, gunnery, engineering, damage control and anti-submarine warfare. The climax of the training period was an operational

readiness inspection and a battle problem that included simulated bomb and missile damage to the ship.

After the shakedown training with the Fleet Training Group the German ship received type training with units of DesLant at Key West, Fla.

Upper left: Repair party learns how to make damaged scuttle watertight. *Above:* Main propulsion assistant of *Zerstorer 5* (D 179) asks questions of CWO V. L. Redding, USN, Fleet Training Group, during engineering problem. *Left:* DCs prepare to pump out 'flooded' compartment during battle damage problem. *Left below:* German gunnery officer observes crew's marksmanship, as gun crew (below) mans mount of former U.S. destroyer *uss Dyson* (DD 572), now sailing with the Federal German Navy.



LETTERS TO THE EDITOR

Shore Duty, But Not in U.S.

SIR: I would like to know how I can go from sea duty to overseas shore duty. I have tried, but have ended up with a set of orders to San Diego.

I requested a billet in England, France, or Spain, where I feel certain there are billets for NWs.

When I filled out my Seavey card I was told that a stateside choice was mandatory. I chose Nevada, even though I didn't want shore duty. Is there any way that I can now avoid this involuntary tour of shore duty, and get my choice of overseas shore duty?—A.F., NWI, USN.

• *The Chief of Naval Personnel would like to give every man in the Navy his first choice of duty. Since the first consideration is the defense of our country, however, this is not always possible.*

Such is your case. As you no doubt realize, a nuclear weaponsman can be used at a very limited number of places. There are no overseas requirements for your rating at this time. Since there is a shortage of men with your qualifications, you must be used where the Navy needs you. That's why you were assigned a billet in the U.S. and not some place overseas of your own choosing.—Ed.

Navy Publications

SIR: Where can I procure a fairly complete list of the naval publications issued by the various Navy bureaus and published by the Government Printing Office?

I receive the monthly lists issued by the Government Printing Office, but have found that they don't carry many of the publications I have come across in the Navy Department and Naval Academy libraries.

—K.S.Y., CAPT, U.S.A.

• *Your best bet would probably be NavSanda Publication 2002, which lists the publications available to naval ac-*

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

tivities through the Navy Supply System.

Not all the items listed here are sold by the Superintendent of Documents, Government Printing Office. However, this is the only single list that might fit your needs.—Ed.

Navy Carpenters

SIR: "I believe the Navy should bring back the old carpenters rate." I have often said this to people I work with and they say, "Well, there is not enough carpenter work." Little do they know just how much carpenter work there is to do. I know for a fact that there is a whole lot more work in carpentry than in pattern making, yet there is a rate for pattern makers.

As long as there are trees there will be plenty of work for us carpenters. And besides, wood is not the only material with which we work. What about tile, inlaid linoleum, ceramic tile, cork, asbestos, plastic, formica, glass and screen? Not to mention boat repair which is a job in itself. A carpenter, for example, must be able to use a greater variety of machine tools than a machinist's mate.

The damage control rate is a very important part of the Navy's fighting team, but it shouldn't include carpentry. A man might well be able to build a beautiful accommodation ladder and incapable of calibrating a geiger counter. Another man might be a whiz in chemical warfare and wouldn't be able to drive a nail.—A.P.Z., DCI, USN.

• *A bit of the historical background that developed with the shifting of duties from the old Carpenter's Mate rating to that of Damage Controlman seems to be in order. It may give you some idea of the factors that enter into necessary rating structure changes as determined by the changing status of the Navy.*

The old rating of Carpenter's Mate was incorporated into the Damage Controlman rating as the emergency service rating of DCW (Damage Controlman, Carpenter's Mate) effective April 1948, in accordance with the post-war rating structure. At that time, the general service rating of DC was also made responsible for carpentry duties.

In February 1959, the Secretary of the Navy approved disestablishment of all the emergency service ratings of Damage Controlman, including that of Carpenter's Mate. However, the DC rating at that time was redesignated as a "general rating," and the carpentry duties were retained in the DC rating.

Change No. 14 to NavPers 18068 contains the qualifications for advancement in rating of the DC.

A search of the files shows no previous recommendations for taking carpentry out of the DC rating. However, if your convictions on this matter are so strong, you may, of course, submit a recommendation through channels to the Chief of Naval Personnel (Permanent Board for Review of the Enlisted Rating Structure) for consideration. Perhaps there will be other DCs who agree with you.—Ed.

Transportation for Dependents

SIR: I am attached to a unit stationed at Keflavik, Iceland. I am married to an Icelandic girl, and our first permanent home is here in Iceland.

I am scheduled for transfer soon, and I understand that I should be authorized concurrent travel for my wife to my next duty station, Key West, Fla. If so, should I submit a claim for reimbursement for any commercial travel expense I incur if government transportation is not furnished my wife?—R.E.N., RM2, USN.

• *Transportation for your wife will be authorized. You will travel via available MATS transportation to McGuire AFB, N. J. Then you will be reimbursed on a mileage basis to your next duty station for travel within the United States, or T/R's could be furnished for travel within CONUS if you so desire. You should make application for your wife's travel through the CO of your unit.—Ed.*

Time In Rate For Exams

SIR: I was advanced to storekeeper first class on 16 Dec 1959. Will I be eligible to take the examination for SKC in February 1962, and provided I make a high enough score, be advanced to CPO on 16 Jan 1963?—W.E.B., SKI, USN.

• *No. You will not be eligible to compete for advancement to SKC until February 1963. Current instructions state that the required time in rate (in your case, three years) must be completed on or before the terminal eligibility date, which is 16 May for the February exam.—Ed.*

Three Cheers for the Black Gang

SIR: I have just finished reading the June 1960 issue of All Hands and was most happy with the back cover. It is an excellent tribute to the Black Gang, who stand long hours of watches in port and at sea, doing a job that is important and little recognized.—C.S.Q., CDR, USN.

• *We're glad to hear a good word for the Black Gang from someone besides ourselves. We've always maintained that, no matter how great the praise, it still isn't enough.—Ed.*

Career in Submarines

SIR: After reading in ALL HANDS recently about the important job FTs are doing in the new missile systems, I have become very interested in the submarine service. It appears to me that, over the long haul, submarine duty would be the best bet for me for a Navy career.

My question is: How can I, with one year of obligated service remaining on my first enlistment, get into the FBM program, and so be in a position to reap some benefits (service school, for instance) from reenlisting for a six-year hitch?—D.F.R., FTA3, USN.

• First, in order to be qualified for Polaris training leading to duty in an SSB(N) you must be a qualified submariner. Second, before becoming a qualified submariner, you must attend Submarine School. Third, to be eligible for Submarine School, you must have at least 24 months of obligated service remaining.

Our suggestion: Submit an application (NavPers 1339) for Basic Submarine School, and, if you are selected, extend your enlistment to give yourself the necessary obligated service. Then, after completion of school and service aboard a submarine until you became a qualified submariner, you could submit your request for Polaris training.—ED.

Who Is Mess President?

SIR: There is a difference of opinion aboard this ship as to who should be the mess president. Here's the background. Will you straighten us out?

One man made SKCS on 16 Dec 1959 and an SFCS made it on the same day. I maintain that rate precedence

Standard Sea Tours?

SIR: I was interested in the facts you published about Seavey in past articles. There is one thing, however, that I have always wondered about and which hasn't been made clear—uniform tours of sea duty.

I thought there was a uniform tour of sea duty (such as 18 months for PN3 and above), just as there is a set tour of shore duty.—E.L.R., PN1, USN.

• There is no standard sea-tour for any rating, and because the need for men both ashore and at sea varies, there are no plans to institute a uniform sea duty tour, except overseas, of course. A minimum of three years at sea is desirable, but for some ratings (clerical or administration), this is impossible.—ED.

doesn't enter into seniority and since both made E-8 on the same day, the determining factor would be who made E-7 first. The SKCS made E-7 in January 1944, went out of the Navy in May 1946, but went into the Naval Reserve. He returned to active duty in October 1950 and shipped regular in April 1959. The SFCS made E-7 some time in 1947 and has been on continuous active service.

Who's Mess President?—A.K., YNC, USN.

• The Senior Chief Shipfitter (SFCS) should be the Mess President.

Article 1817 of "U.S. Navy Regulations," as corrected by change number nine, states that the chief petty officer who is senior for military matters (as

described in Article C-2103, BuPers Manual) shall be the mess president. Since shipfitter ranks above an SK on the rating precedence list, the SF should be mess president.

Seniority for non-military matters, however, when continuous service in pay grade counts and not rating, is another story. The rules for precedence make no distinction between active and inactive duty in defining continuous service. If the SKCS has maintained continuous affiliation with the Navy, either in an active or inactive status, since 1944, he would take precedence for non-military matters.—ED.

Minimum Clothing Outfit

SIR: What is the minimum amount of clothing and uniform items that an enlisted man is supposed to have in his possession at a ship or station?—W.J.M., QM3, USN.

• In Chapter 7 of "Uniform Regs" you'll find listed the "minimum outfit of articles of uniform and accessories prescribed for enlisted men, other than chief petty officers, of the Regular Navy . . . The list read like this:

ITEM	QUANTITY
Belts:	
Black	1
White	1
Caps:	
Blue working	1
Service, blue	1
Watch	1
Clothes stops	3 pkg
Drawers	6 pr.
Gloves, black	1 pr.
Hat, white	4
Insignia	as required
Jacket, blue working	1
Jumpers:	
Blue, dress	1
Blue, undress	2
White, undress	4
Neckerchief	1
Peacoat	1
Raincoat, blue	1
Sea bag	1
Shirt, blue chambray	3
Shoes:	
Black, dress	2 pr.
Black service	1 pr.
Gymnasium	1 pr.
Socks, black	8 pr.
Sweater, blue	1
Towel, bath:	
Large	2
Small	2
(This small towel will be replaced by the large towel when present stocks are exhausted.)	
Trousers:	
Blue	3 pr.
Dungaree	3 pr.
White	4 pr.
Trunks, swim	1 pr.
Undershirt	6

Certain of these items are, at the discretion of the local CO, optional after

COMING OUT PARTY—LCDR Walter M. Schirra, a Mercury Astronaut, practices escape from a model of capsule designed for man-into-space project.



completion of recruit training. These are: clothes stops, black service shoes, and gym shoes.—ED.

The Flying Hammers

SIR: I am an AME, and am curious as to whether the Uniform Board is considering adoption of some sort of device to differentiate between the three different specialty classifications within the AM rating.

If not, might I suggest that a single letter, sewed either under or above the "flying hammers," would suffice. Thus the letter "S" could indicate structural mechanic; "H" hydraulic mechanic; and "E" could represent emergency equipment mechanic.

Also, could you possibly clue us in on the advancement prospects for AMEs? Our rating is new, yet it has been "closed" compared to the other AM branches. Is the future outlook bright or gloomy for us?—R.H.O., AME3, USN.

• There are no plans afoot at the present time to establish separate distinguishing insignia for service ratings. AM is one of a number of Navy ratings which have separate service ratings at the lower pay grade levels, and a general rating at the higher levels.

As for your advancement opportunities, they have brightened considerably of late. In fact, they now are equal to those in the other AM service ratings. For instance an estimated 35 per cent to 70 per cent of those passing the third class PO exam the past August can expect to be advanced in all three AM service ratings. From 70 per cent to 100 per cent of those who passed the second class examination may expect advancement.—ED.

Sword at Inspection

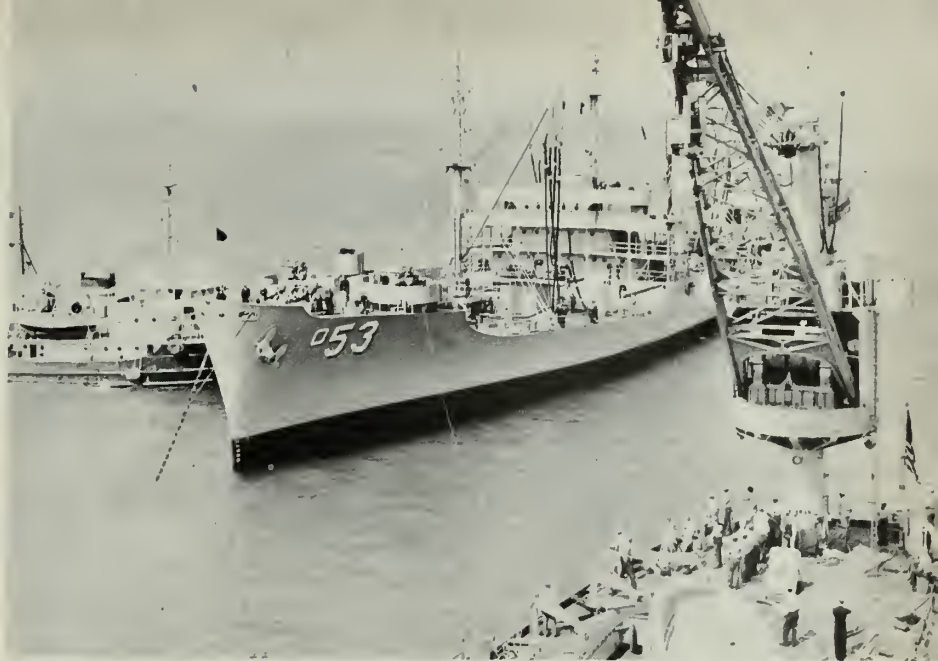
SIR: Since the sword has become standard equipment for all naval officers, I have seen them used in conflicting ways.

The one thing I am puzzled about, and I have been unable to find the answer, concerns a division officer commanding troops not under arms at an inspection or passing in review. Should the division officer draw and use his sword to give commands, or should he leave the sword in the scabbard?—LT G.M.R., USN.

• Leave it in the scabbard. When commanding unarmed troops, you should not draw your sword to give commands. Although this is not spelled out in the "Landing Party Manual," or in any other reference we know, Navy officers generally agree that this is the proper procedure.—ED.

Five Days, 1500 Landings

SIR: In the Today's Navy section of the May issue of All Hands, *uss Hancock* (CVA 19) claimed a record for number of jet landings made in one day. Their record of 245 and 260 jet landings in a



FILL 'ER UP—USS Caliente (AO 53) pumps aviation gasoline to seaplane tender USS Salisbury Sound (AV 13) for fueling patrol planes in the Far East.

single days operations are figures of which to be proud and possibly sets a record for their class carrier.

Aboard *uss Midway* (CVA 41) in the late spring of 1959 we too accomplished a landing mark or two that were accepted as routine for this ship. Possibly the most impressive was 1500 landings in five consecutive operating days. Our high marks for single-day, daylight jet landings were 413 and 437. We ran out of work one of these days and had to send to the beach for additional aircraft and added 50 prop landings to the 437 mark. The many touch-and-go landings that go with any carrier qualification phase were not

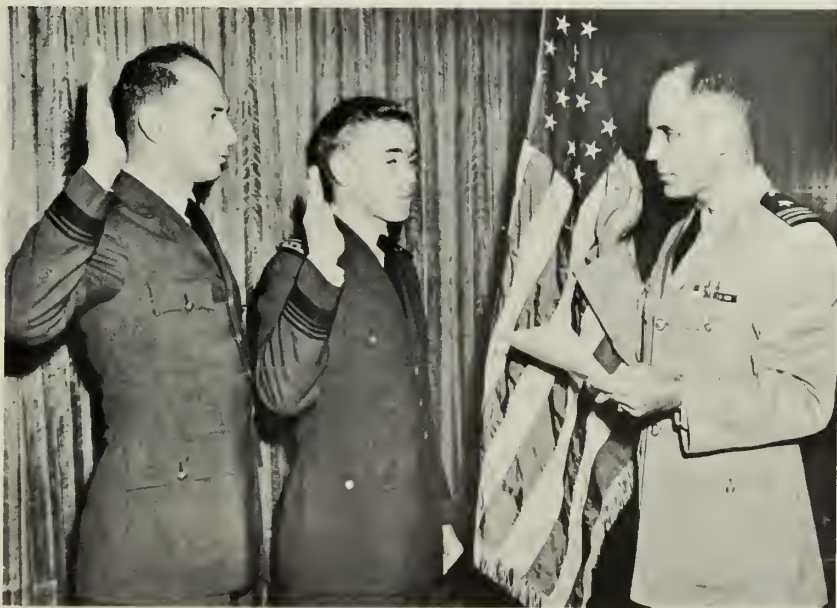
included in the landing totals.

These marks were established during daylight using pilots and aircraft from CVG-2 and VA-125. The number of 300 plus jet landing days were too numerous to count. One occurred on a Monday during a half day's operation.

I can't recall if coffee breaks were ordered during the days these marks were established, but I do remember we had our normal chow breaks and numerous cups of coffee.—LCDR E. L. Robinson, USN.

• We think this is some kind of touch-and-go record, but won't commit ourselves on how long it will stay.—ED.

IN THE NAVY NOW—John H. Huhn, left, and Alfred J. Cler, Jr., center, are sworn into the Navy after graduating from the Air Force Academy.





MIGHTY MITE—Guided missile destroyer USS Gyatt (DDG 1) cruises on the high seas, furnishing antiaircraft support with her Terrier guided missiles.

Princeton, Class of '06 and '07

SIR: I have written down some of my recollections of the Navy as I knew it in the early 1900s. Perhaps some of your younger readers will be interested in this account of a cruise in the third USS *Princeton*, and perhaps some of my old shipmates may be included in your audience. I'm hoping we can renew old acquaintances once again.

USS *Princeton* was a wooden ship, copper-sheathed below the water line. She was three masted—fore, main and mizzen—square-rigged on the fore and schooner-rigged on the main and mizzen. There were two staysails—one between foremast and main and one between main and mizzen—and there were three jibs—inner, outer and flying.

Her auxiliary power was steam, and she had one stack and one propeller. She was painted white on the hull and spar color on the superstructure.

Under the jib boom she carried a figurehead, as was usual at that time. This was the bust of a woman with flowing robes, all done in gold leaf.

Princeton's armament consisted of two 4-inch guns (one on the forecastle and one on the fantail) and several six-pounders on the gun deck.

The running lights used lard oil as fuel, and the ship carried the rate of a lamp-lighter, whose job it was to fill and care for the lamps—including the smoking lamp. Smoking was allowed only when this lamp was lit, and we could light our pipes, cigars and cigarettes from it.

The ship's over-all length was 140 feet. She had a crew of 134 officers and enlisted men, and her boats consisted

of one 28-foot steam launch, two 24-foot cutters and two 22-foot whaleboats.

The cruise I remember best began on 4 Jan 1906, when we sailed from Mare Island bound for Santa Barbara, where we met the cruiser *Chicago* and took aboard a couple of midshipmen. One of them was a Mr. Kinkaid, now Admiral Kinkaid, retired.

After a few days at Santa Barbara, we proceeded to San Diego. On the way down Chief Boatswain's Mate McDonald sent a new recruit to an equally new officer who was serving as OOD, with a request for the "key to the keelson." Officer of the Deck was in charge of all keys for the day, but not knowing anything about the "key to the keelson," he referred the recruit to the chief master at arms, who put a stop to the hoax.

We spent a short time in San Diego, then proceeded to Corinto, Nicaragua, and later moved on to Magdalena Bay, Mexico, where the ship's doctor quarantined the ship for three weeks because of a diphtheria scare on board.

We soon ran short of food, since we

were away from our source of supply and had no refrigeration. So, there were no vegetables, no sugar and no flour. We did have a barrel of blackstrap molasses, which we used as a substitute for sugar, and we had plenty of rice, some eight-year-old tinned hardtack canned for the Spanish-American War and some tinned butter.

From Magdalena Bay we headed back for San Diego, where we arrived April 15th. On the morning of the 18th we received a wireless (spark and gap) that San Francisco had been damaged by an earthquake, so we were ordered to San Pedro to take on coal and supplies for the stricken city. At San Pedro all hands turned to, working from 11 p.m. to 4 a.m., to coal the ship and take on canned goods. All the decks were piled so high with supplies that we didn't even have room to swing our hammocks or set up the mess tables.

Princeton reached San Francisco the third day after the quake, and tied up just north of the Ferry Building. After the supplies had been unloaded the crew was put on guard duty along the waterfront, for the city was under martial law.

From San Francisco the ship went to Portland, Ore. There, the crew put on a minstrel show at the old Bungalow Theater, and we also did an act with a bulldog that had been picked up in San Francisco by "Dutch" Amacher and made mascot of the ship.

Then we moved on to Hoquiam, Wash., and from there to Blaine, where we had preliminary target practice. In it I broke the world record with a 4-inch gun, making four hits in 31 seconds.

For the Fourth of July we went to Anacortes, Wash., and afterward, on to Bremerton drydock for overhaul, during which our figurehead was completely refinished with gold leaf. (The estimate by some crew members was that it cost \$10,000! I don't know whether that was scuttlebutt or not.)

Upon completing our stay in drydock we sailed as far as Port Townsend, where we anchored to wait for clear weather before entering the Straits of Juan de Fuca between Washington and Vancouver. About five o'clock, the morning after we anchored, a large, square-rigged sailing ship being towed by a tug drifted across our bow, tearing off the bowsprit and our precious figurehead.

Our mascot, the bulldog, added to the excitement by barking like blazes, and the captain, F. H. Sherman, called out the gun crew to halt the "offender." However, no shots were exchanged.

After the accident, *Princeton* had to return to Bremerton for repairs. Because of the expense, it was decided not to replace her figurehead.

In September 1906 we headed for Mare Island to pick up additional ammunition and supplies. (Bremerton and San Francisco were the only supply depots on the West Coast at that time.) Then we went to San Diego for a two-

Nuclear Weaponsman Switch

SIR: In your March 1960 issue (Page 30) you state that 24 months of obligated service is required to convert to the NW rating. BuPers Inst. 1440.18B says that 36 months is required. Which is right?—T. P. B., NW3, USN.

• BuPers Inst. 1440.18B is correct. Wonder how long it will take the JO who did that story to change his rate?—ED.

week stay before returning to Magdalena Bay for target practice.

Gunnery competition was keen in those days, for there was prize money at stake. I won out over the other gun-pointers on the 4-inchers.

By beating the other ships in our class, *Princeton's* gun crew won the prize money. It amounted to eight dollars for the gun-pointers and smaller amounts for the others in the crew. (We didn't get the money, however, until almost a year later.)

From Magdalena Bay we went back to Mare Island, via San Diego. There we spent Christmas and New Year's Day.

In February *Princeton* headed for Bremerton again. On this cruise we encountered rough weather all the way to Cape Flattery.

We were using both our sails and steam, and had the misfortune to hit some flotsam, which broke a blade off our three-bladed propeller and shook the daylight out of the stern of the ship. It took us seven days to make Flattery, which we normally would have made in three days.

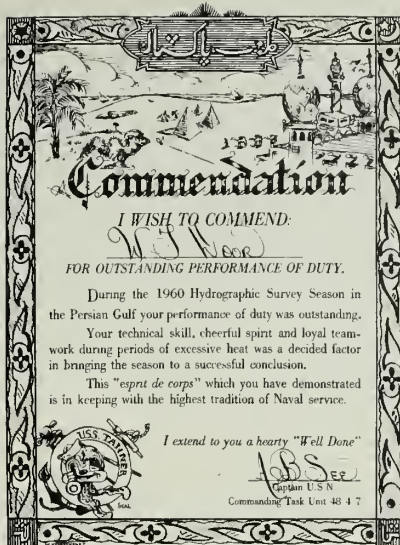
In the early spring of 1907 *Princeton* was decommissioned, and the crew was transferred to *uss Nebraska*, which we commissioned. *Nebraska's* captain had obtained permission from the Navy Department to recruit his full complement of some 600 men.

Meanwhile, *Princeton* was being completely overhauled. She lost her yard-arms, which made her a schooner rig, and later in 1907 she was recommissioned and saw duty along the Pacific coast.

Later, she was taken to Guam where she was used as a station ship.

Those were the good old days.—Ray Denton, ex-USN.

• *Thanks for a chance to cruise again in the old uss Princeton. There's nothing we could add to your interesting remarks about that fine old ship.*—ED.



Persian Gulf Certificate

SIR: The surveying ships *uss Tanner* (AGS 15) and *Requisite* (AGS 18) recently returned to CONUS after conducting nearly four months of extensive surveying and other oceanographic research work in the remote regions of the Persian Gulf.

An HU-2 Detachment and Marine Corps Coastal Survey Team 2-59 were also embarked in *Tanner*, while *Requisite's* complement included a team of civilian researchers.

Enclosed is a copy of the commendation which was awarded to key personnel who, over and above their regular duties, contributed materially to the success of the survey season.

We hope it will be of interest to ALL HANDS readers.—G. E. D., CAP, USN

• *Thanks. We'd be willing to bet that a sizable number of the crews of these two ships received one of these certificates. It's a fine way to give recognition for fine work.*—ED.

CT Is Critical Rating

SIR: I am a CTSN stationed in Kodiak, Alaska. I am interested in the new Postal Clerk rating and my local command has assured me they will approve my request to switch ratings when PC becomes officially established.

Has it become part of the rating structure yet, and if so, when will the first examinations for advancement in rating be held?—R.P., CTSN, USN.

• *Postal Clerk (PC) was officially established by BuPers Inst. 1440.26 issued in June 1960. Unfortunately for you, however, a CT cannot change to PC. The CT rating, including strikers, is a critical rating, and the Navy cannot afford to take trained men out of the rating.*

For non-designated strikers, or for those switching their rating, the first advancement examinations will be held in February 1961.—ED.

Three Holes-In-One

SIR: I enjoyed your article "A look at the Record by Sailor Sportsmen" which was published in the June issue. One of the reasons was, perhaps, because I too have been hitting the ball rather well at the local golf course lately.

In the past six months I have made three holes in one while playing on the Charleston Naval Base Golf Course. The first one occurred on the 155-yard 3rd hole on 13 Dec 1959; the second on the 107-yard 5th hole on 26 Mar 1960; and the third one on the 90-yard 14th hole on 15 June 1960.—J.E.C., Jr., SK2, USN.

• *If these Holes-in-One were made on a golf course that has no more than five par three holes out of the 18, you may submit a request for a trophy to the Chief of Naval Personnel (attention Pers G 11). You must enclose certified copies of your official score card.*

If the course is that good, we hope to get an opportunity to drop by.—ED.

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Ships Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

- *uss Arizona* (BB 39)—A memorial reunion will be held at the Lafayette Hotel, Long Beach, Calif., on 22 Apr 1961. For more information, write to Joe Keehen, 811 Locust Ave., Long Beach 13, Calif.

- *uss Santa Fe* (CL 60)—The 14th annual reunion will be held at the Statler-Hilton Hotel, Boston, Mass., on 1 October. For details, write to Fred-

erick C. Jaissle, 18 Cedar St., Hudson, Mass.

- *uss Reticulus* (AK 113)—A reunion of officers and men who served on board during World War II is being planned. Write to A. B. Virkler Legate, 26 Wakefield St., Reading, Mass., for information.

- *uss San Diego* (CL 53)—A reunion of men who served on board in 1942 and 1943 is planned for September. Those interested may write to Dino M. Bini, 22 Caledonia Ave., Quincy 15, Mass.

- *uss Windsor* (APA 55)—All officers who served on board during World War II and are interested in a reunion may write to John T. Lamb, 3104 Poinciana Rd., Middletown, Ohio.

Underway Record, Sliced Up

SIR: The recent letters from numerous AGR's concerning steaming records and underway hours were interesting to the Naval personnel of this command. They, particularly *Scanner*, have every reason for their pride. However, for sea duty sliced into hours, percentages, or what have you, we believe they are all a bit over enthusiastic.

For calendar year 1959, Oceanographics Detachment in *usns Dutton* (T-AGS 22) logged 318 days underway for 87 per cent. For fiscal year 1959, the statistics were 84.4 per cent with a Christmas yard period responsible for the reduction.

The longest cruise was 47 days and shortest 21 days. Normal R & R port stays were from two to four days.

The detachment is permanently deployed. Home port is Norfolk, Va., which we have never visited. There are five plankowners aboard at present.—LCDR J. W. Lee, USN.

- *Next claim?*—ED.

Colors of Memphis and Triton

SIR: More concerning *Tennessee-Memphis* (ALL HANDS, October 1959 and April 1960).

You may be interested to know there exists an organization made up of the survivors who were on board that fateful day, 29 Aug 1916, when *uss Memphis* was driven ashore in a storm and wrecked. We meet each year on the anniversary date of the disaster—in Philadelphia last year, Cleveland this summer, and Florida, probably, in 1961.

Captain Edward L. Beach, USN, Commanding Officer of *uss Triton*, SSR(N) 586, and the son of our old skipper, is Honorary Captain of our outfit. Whenever possible he attends our annual meetings.

Through our activities we believe that we contribute, in our small way, toward

perpetuating an ancient and honorable naval tradition — "Shipmates but once, and you're shipmates forever, bound by such ties that nothing may sever."

We are currently making plans to hold our 1966 meeting, the 50th anniversary of the loss of our ship, in Memphis, Tenn.—Robert J. Ganley, LT, USNR (Ret.)

- *Sounds like a fine organization you've got there, Lieutenant. You will be interested to know that your Honorary Captain has brought further honor to the memory of your fine ship. We refer to the ship's log of *uss Triton*, which her skipper, Capt. Edward L. Beach, USN, kept during her historic 83-day submerged journey around the world. The log states:*

"As *Triton* enters *Thames River* enroute to her berth in *New London*, we

Question on HHE and Travel

SIR: When I was transferred to *uss Lexington* (CVA 16), the Navy moved my family and household effects to San Diego, Calif., where my ship was home-ported. Since then, however, I have moved my family to the San Francisco area at my own expense.

When I receive permanent change of station orders, will the Navy move my household effects and pay a travel allowance for my dependents from San Francisco or will I have to move them back to San Diego?—D.M.L., EM1, USN.

- *The Navy will move your household effects from San Francisco to your next duty station, but the government will only pay those costs which would have been allowed had the shipment been from San Diego. The same for travel allowance. The Navy will only pay up to the amount that would have been allowed from San Diego.*—ED.

shall man the rail in traditional Navy style. That is, the members of the crew topside will be dressed in the uniform of the day and will form a solid line from bow to stern, thus creating, we hope, a sharp and military appearance. We are proud of our ship and want her to look her best, despite the scars from three months' contest with the elements.

"Flying from our highest periscope will be a rather old and slightly weather-beaten set of colors, and thereby hangs the very personal story which must now be told.

"In 1916 my father was Commanding Officer of the armored cruiser *Memphis* (ex-*Tennessee*) which, he used to say, was the most responsive ship, the best trained and the easiest handled, of any he had ever served in. On August 29th of that year, lying at anchor in the Harbor of Santo Domingo (now known as Cuidad Trujillo) of the Dominican Republic, Father noticed a heavy surf commencing to make up along the shore. A look to seaward brought him up with a start, and he ordered that the ship be made immediately ready to go to sea. Hurriedly he sent a message directing the baseball team, then due to return from practice, to stay ashore. Two of the three boats received the message and did indeed wait, but the third either did not see the signal or failed to understand it, for on it came.

"Forty minutes later, a tidal wave swept completely over the top of *Memphis*, swamped the bridge, inundated the entire topsides of the ship. *Memphis* had almost, but not quite, got steam to her engines. Her anchor chains (all three anchors, in desperation, were down) stretched, then snapped; she was swept from her berth, and within half an hour she crashed ashore in 12 feet of water.

"Father survived the catastrophe, although a number of people who were standing on the bridge with him were swept overboard and lost. Several were killed by flying debris below decks, or by burst steam lines, and he watched helplessly as the boat with the baseball party rolled over and over in the gigantic surf.

"Not long ago I received a letter from an ex-Navyman who wanted to know, since I bore the same name, if I were related to his old skipper in *Memphis*. I responded that I was indeed—and after some additional correspondence it developed that Stanley P. Moran of Wilmington, Delaware, had in his possession the ensign that flew over *Memphis* that disastrous day.

"Sam Worth, of Cleveland, Ohio, its present owner, had no idea why I suddenly had such need of his cherished flag, but he sent it to me special delivery immediately upon receipt of my urgent letter. Soon he and Stanley Moran will both know. For when *Triton* enters the *Thames River* on May 11 next, this same flag will be flying once again, probably for the last time, over a mighty United States man-of-war."—ED.



For Star Gazers Only

ON THE FOLLOWING PAGES you'll find a detailed, yet clear, chart of the major stars to be found in the northern and southern hemispheres. It's intended to help you, no matter where you may be, to bring some order out of the apparently chaotic multitude of stars about you.

If you are standing a watch on deck on a starry night and if you take a casual glance at the sky overhead you get the impression of a mad assortment of stars thrown together without pattern or reason. There are so many bright stars and faint stars, all mixed together, that it seems impossible to learn much about them without years of study.

Not true. It's relatively easy: If you take your time, you'll notice little groups of stars that form the design of a square, a diamond, a kite or a cross. If you're in the northern hemisphere, you'll find the Big Dipper without any strain at all. (Don't think for a moment that you're the first to notice the startling similarity between this group of stars and the common household utensil. Shortly after the first gourd was used for drinking purposes some thousands of years ago, an observant citizen noticed the parallel.)

Don't let the concept of the constellations bug you. As a new, and presumably objective observer, you may very well come to the conclusion that the imaginary names and figures are more confusing than helpful. There is one school of thought which is inclined to support your viewpoint. Nevertheless, let's bear with the romanticists and see what they have to offer.

These imaginary figures, as they are outlined on the next two pages, are the basis of legends and folklore throughout the world. Thousands of years ago, it was just as hard as it is today to point up to the

sky and expect to select a single star from the many which were visible. It was possible, however, to refer to the star next to the end of the tail of a bear when everyone knew the location of the hypothetical bear. Everyone in the local tribe recognized those groups of figures which were most familiar to them and these have been handed down to us.

Even before there was a written history, stories of great heroes and beautiful heroines were told by father to son, or by a group leader to his followers, as they sat around a camp fire. These legends grew more wonderful with each generation of retelling until the heroes became gods. The stories of these gods who battled the forces of evil and won the hearts of the beautiful maidens marked the beginnings of mythology.

As the tales of these adventurous gods became accepted fact in ancient life, the story tellers decided that the gods deserved suitable monuments in their honor, but nothing as perishable as monuments on earth could be satisfactory. However, when they looked up at the distant, mysterious stars, they knew that they had found a fitting memorial for their gods and heroes.

One group of stars they named for a great warrior, another they named for the maiden he rescued, still another for the sea monster that was going to destroy her. As time went on, these groups of stars which comprised a constellation became generally recognized and finally were incorporated as a part of early astronomical writings. The principal constellations of today are very similar to those accepted by the ancient Greeks before 300 B.C. (excepting, of course, the ones added later in the southern sky which could not be seen from Greece).

Thus, the constellations were created in the minds of the ancients for two reasons: To lend authenticity to their legends; to help in recognizing and remembering the stars.

One point to bear in mind—most of the constellations do not actually look like the objects or persons for which they are named, any more than a DD looks like the person for whom it was named. You might as well expect *Nautilus* to look like a cephalopod mollusk. Thus, when you see references to the constellation Leo, don't expect to see a picture of a lion in the sky. However, you can expect to see a group of 10 stars of varying magnitudes, grouped in one special way. That's Leo.

A bright, full moon will interfere with seeing the faint stars, so plan your star-gazing accordingly. As a beginner you will find the hour after sunset a good time to learn the major constellations and the brightest stars. Since many fainter stars will be hidden by the twilight, you can concentrate on the brighter stars with less chance of being confused. Because of the earth's rotation, new stars and constellations come into view in the eastern sky as the evening progresses. Thus, very late at night you may see stars which were not visible in the evening sky.

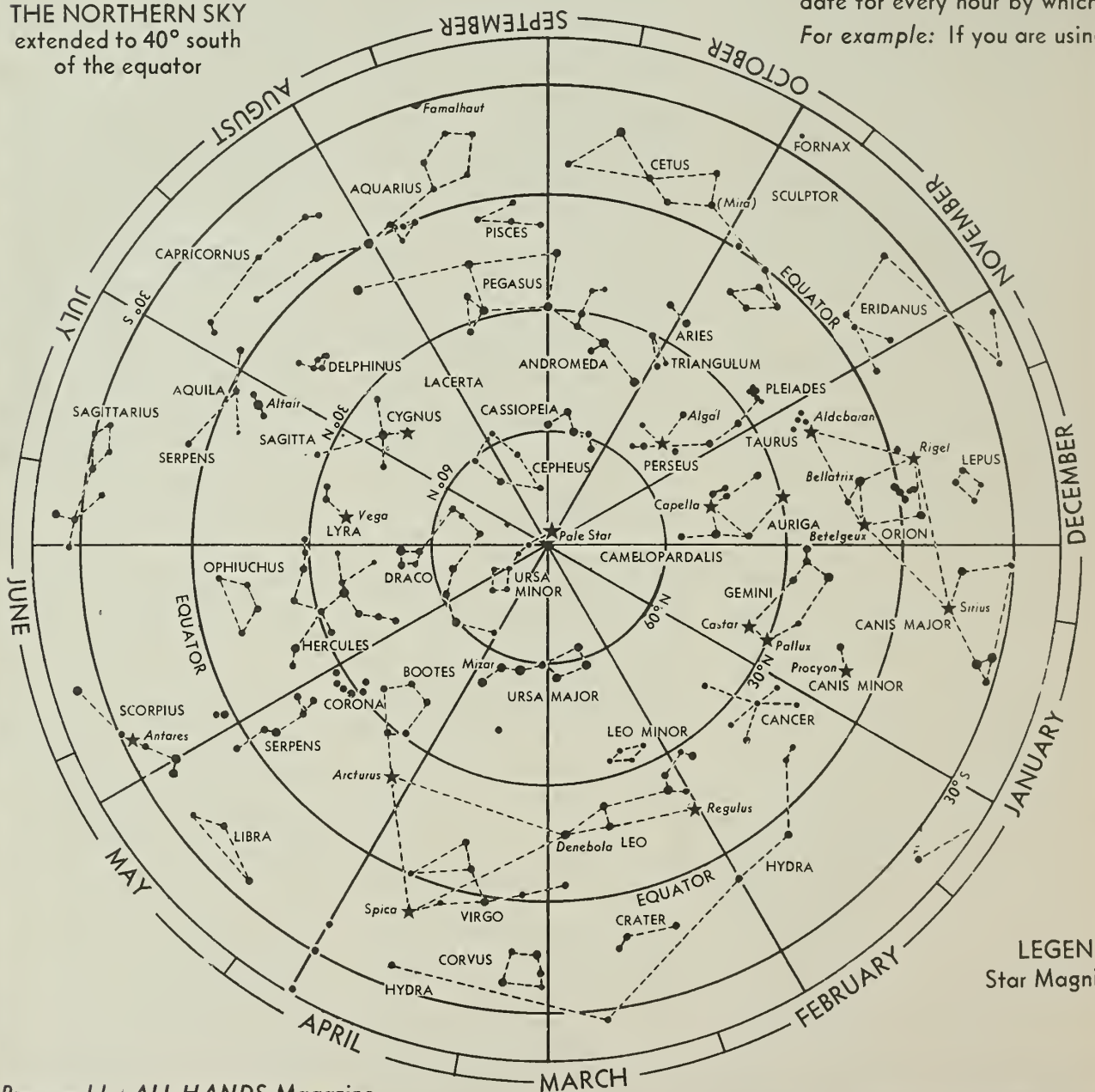
You need no equipment to see and study the thousands of stars—nothing more than your two eyes. However, later you may find your enjoyment enhanced by the use of field glasses (6 to 8 power). With these you can see the moons of the planet Jupiter, many fainter stars and nebulae and details of the moon. Larger field glasses (12, 15 or 18 power) will reveal finer lunar details and hundreds of interesting stellar objects. At powers greater than 10x, glasses must be steadied as you would a camera during long exposures.

DO-IT-YOURSELF STAR CHART

How to use these maps:

1. Select the map corresponding to your location: northern sky if you are north of the equator, southern sky if you are south of it. If you happen to be close to the equator, you will want to use both.
2. IF THE TIME IS CLOSE TO MIDNIGHT, LOCAL TIME, turn the map around until the date is at the bottom. Only the months have been printed, but you can of course estimate the day of the month too—the black lines running to the pole of the map for example correspond roughly to the 20th of each month. If you

THE NORTHERN SKY
extended to 40° south
of the equator



imagine a similar line drawn from your local meridian; and the color of the line will be seen above the sky (the northern map) or the northern sky (the southern map).

For example: If you are using the June 10, you find that Hercules is on the horizon at that time.

3. IF THE LOCAL TIME IS BEFORE MIDNIGHT, use the same procedure as in 2) but for a date half a month later. For example: If you are using the June 10, you find that Hercules is on the horizon at that time.

RT for Navymen Everywhere

the pole to the date, this will be
constellations near the bottom of
northern horizon (if you are using
the horizon (if you are using the

northern map at midnight on
ould be high above the southern

MIDNIGHT, use the same pro-
cedure a month earlier than the actual
time precedes midnight.

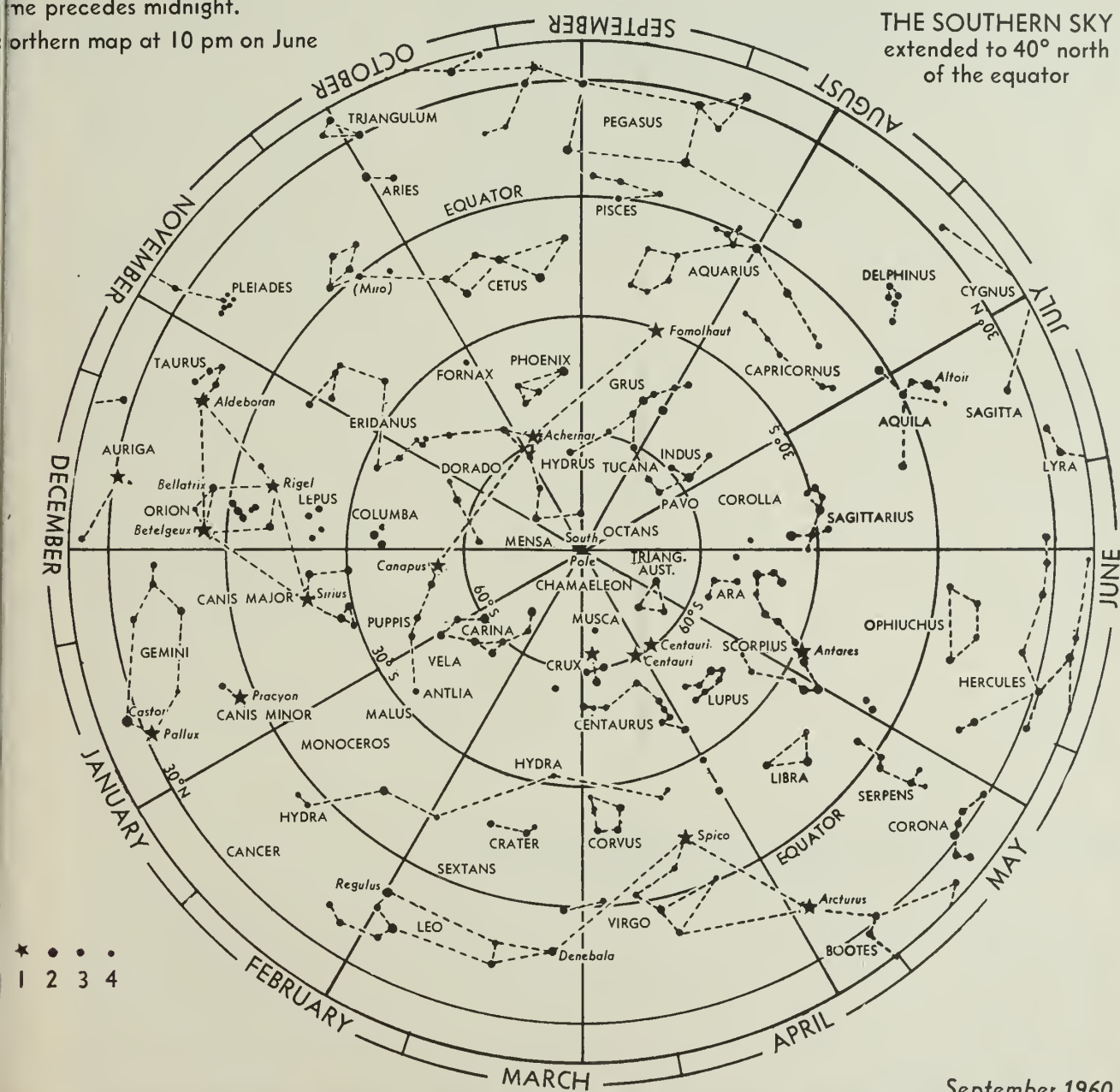
northern map at 10 pm on June

10, pretend that it is midnight on May 10 and proceed as above.
You find that Bootes is crossing the meridian.

4. IF THE LOCAL TIME IS *AFTER* MIDNIGHT, use the same pro-
cedure again, but for a date half a month later than the actual
date for every hour by which the time follows midnight.

For example: If you are using the northern map at 3 am on June
10, pretend that it is midnight on July 25 and proceed as above.
You find that Cygnus is crossing the meridian.

THE SOUTHERN SKY
extended to 40° north
of the equator



September 1960

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



Bullpup Unleashed by Copters

Bullpup air-to-surface missiles have been successfully launched from helicopters.

The missile-helicopter combination has been undergoing tests at Patuxent River, using a Marine Corps HUS-1 helicopter.

Bullpup is a radio-controlled missile. It had previously been fired only from such fast planes as the A4D and the FJ-4B. It is used against tanks, pillboxes, airfield installations and bridges.

In recent tests *Bullpup* was fired while the helicopter hovered at 1500 feet. Seconds after the missile left the craft's side it splashed within inches of a target disk 10,000 yards out in Chesapeake Bay.

Pilots report no stability problems and missile control is no more difficult than from fixed-wing aircraft.

Once *Bullpup* is launched, the pilot guides it to the target by a switch on his control stick. The missile can be steered up, down or to either side during its flight. Flares in the aft section help the pilot keep the missile clearly in sight as it streaks toward the target.

Foreign Coins Put to Use

Not many of us have left a foreign country without some foreign money jingling in our pockets. Although some of this probably goes into a coin collection, there's always some that just lies around dormant.

Crew members of *USS Northampton* (CLC 1) realize this and have found a use for this heretofore unused and forgotten money. When the ship leaves a foreign country, it has become traditional for crew members to donate the money not going into coin collections to the Clarke Fund.

This fund benefits the Clarke School for the Deaf in Northampton, Mass.—the city after which the ship is named. The fund has been so successful that a *USS Northampton* Room was established at the school in June 1958.

The Clarke School, which was founded in 1889 with Alexander Graham Bell on its staff, emphasizes the oral method of teaching the deaf.

NEW STINGER — Navy's air-to-ground guided missile, *Bullpup*, is fired from a helicopter, demonstrating a new concept to support assault troops.

Undersea Fuel Storage

Testing of an undersea liquid storage tank is now underway in the Gulf of Mexico.

The tank consists of a 50,000-gallon rubber container sunk approximately 50 feet on the Gulf's seabed. While the prototype container is one of the largest ever built, it is regarded as only a segment of an undersea fuel system capable of serving as an emergency cache for Fleet ships. Full-scale storage containers would hold in the range of 25,000 barrels and several would be interconnected to a common header in actual operation.

If the idea works, the future below-the-waves warehouses would hold more than a million gallons of fuel, enough to supply several de-

stroyers and smaller Navy vessels.

The 50,000-gallon container is 22 feet wide and 70 feet long when empty. When filled it becomes 20 feet in width, 68 feet in depth. Equipped to receive and discharge liquids and capable of being joined with similar containers, the tank is held to the ocean floor by a tubular steel frame and nylon harness.

If the underwater storage system is successful, the concept could be adapted to establish fueling stations at various points for Fleet ships, submarines and aircraft. The undersea containers could also be used for the storage of gasoline, lubricating oil, crude oil at offshore oil operations and possibly fresh water and other liquids. "Wet storage" is now a possibility of the future.

YESTERDAY'S NAVY



On 4 Sep 1804 *USS Intrepid*, which had been converted into a fire-ship and convoyed into the harbor of Tripoli to destroy enemy shipping, blew up—killing 13 officers and enlisted men. On 7 Sep 1797 *USS Constellation* was launched at Baltimore, Md. On 10 Sep 1750 CAPT Nicholas Biddle, of Revolutionary War fame, was born in Philadelphia, Pa. On 15 Sep 1944 the Navy landed First Marine Division on Peleliu, Palau Islands, after "softening up" the island for several days. On 21 Sep 1859 *USS Portsmouth* captured the American slave ship *Emily* at Loango, Africa.

Since its foundation it has sent its specially trained teachers all over the world.

Three-Minute Missile Check

A *Terrier* or *Tartar* surface-to-air missile can be completely checked for malfunction in three minutes with automatic checkout equipment now being used by the Navy.

The equipment gives the operator a green light when all components in the missile are functioning properly or flashes a red light when the missile is faulty. The equipment also "fault isolates" or indicates the faulty missile component.

By making a few changes, the same basic test set can check out six different missiles in the *Terrier-Tartar* family.

The Navy is so impressed with this equipment that it has awarded a contract for continued production of the special electronic gear.

Look, Ma, I Can Spell

Now we have a machine that can learn to spell. A machine is now under development which can be trained to identify automatically patterns such as letters of the alphabet.

Known as the Mark I Perceptron, the machine is trained by placing a test pattern (which could be letters of the alphabet) in front of the Perceptron's photoelectric cell eye. When the machine incorrectly identifies a pattern or letter, the trainer forces it to respond correctly by means of an electrical control. When the training is completed, the letters of the particular type face can then be shown to the machine's eye, and

it will correctly identify the letters without error. When the recognition problem has been complicated by adding letters of a different type face, the machine has been correct 85 per cent of the time.

The Perceptron does not recognize forms by matching them against an inventory of stored images or by performing a mathematical analysis of characteristics. The Perceptron's recognition is in the form of altered "pathways" through the system.

It is expected that the Perceptron will be useful in the processing of non-numerical information for the solution of scientific, engineering and military problems. Although human beings can normally handle such

problems, this type of machine would have obvious uses.

Scientists engaged in the Perceptron program foresee machines much larger than the Mark I and with much greater capacity. Such future machines could be used to read print of various type faces and to recognize spoken words. They could extract salient features from photographic information.

There are a number of scientific approaches to the research involved. This research is currently being pursued at a number of academic, industrial and government organizations. Perceptron is under development for the Office of Naval Research and the Air Force.



SPEEDSTER—Nuclear-powered *USS Scorpion*, SS(N) 589, returns from sea trials. She is a sister ship to Navy's fastest sub, *USS Skipjack*, SS(N) 585.

ALL TOGETHER—*USS Frontier* (AD 25) takes care of her nest of DDs from Squadron 19 at Long Beach, Calif.





POW—USS *Tullibee*, SS(N) 597, gets a champagne bath during christening ceremonies for new submarine.

News of Navy Ships

Just in case you haven't heard:

- *uss Topeka* (CLG 8) has been recommissioned after conversion to enable her to carry the *Terrier* anti-aircraft missile. The Navy's fifth guided missile cruiser in commission, she will home-port in Long Beach, Calif.

- In addition, two more guided missile frigates *Dahlgren* (DLG 12) and *William V. Pratt* (DLG 13) were launched at the Philadelphia Naval Shipyard. Both are scheduled for completion in 1961.

- *uss George Clymer* (APA 27) played host to 39 blind children when the ship visited Hong Kong earlier this year.

- Amphibious Force flagship *uss Eldorado* (AGC 11) headed a force of Navy visitors to Australian ports during the 18th anniversary of the Battle of Coral Sea. Others were *uss Canberra* (CAG 2), *Helena* (CA 75), *Hassayampa* (AO 145), *Jenkins* (DDE 447), *Walker* (DDE 517) and *O'Bannon* (DDE 450).

- Another nuclear-powered submarine—*Tullibee*, SS(N) 597, has been launched at New London.

- *uss Bon Homme Richard* (CVA 31) accompanied by the destroyers *Morton* (DD 948) and *Hamner* (DD 718) paid a six-day good-will visit to Bombay, India.

- Donald A. Tilton, ABC, from the Naval Air Technical Training Unit, Philadelphia, Pa., was named winner in the first annual Naval Air Technical Training Command's

"Schoolmaster Competition."

- Atlantic Fleet destroyers *uss Ault* (DD 698) and *John W. Weeks* (DD 701) made the first operational visits to the Black Sea since World War II.

- Captain Hawley Russell, Commander CAG 12, landed his F9F-8T jet on the flight deck of *uss Bennington* (CVS 20) to make the carrier's 57,000th landing since commissioning in 1944.

- Auckland, New Zealand, was the first foreign port of call for *uss Halibut*, SSG(N) 587, commissioned last January.

'Eyes' for Frogmen

A completely transistorized sonar system, powered by standard flashlight batteries, has been developed to give Navy frogmen "eyes" underwater.

Used to detect submerged objects, the new sonar is particularly valuable to divers and underwater demolition teams operating in dark waters where visibility is zero.

The 20-pound sphere, slightly larger than a basketball, has an aluminum casing and is a cubic foot in volume. Grips at the side are held by the diver, permitting easy maneuverability and control. Ear

phones provide the user with audio information detected by sonar.

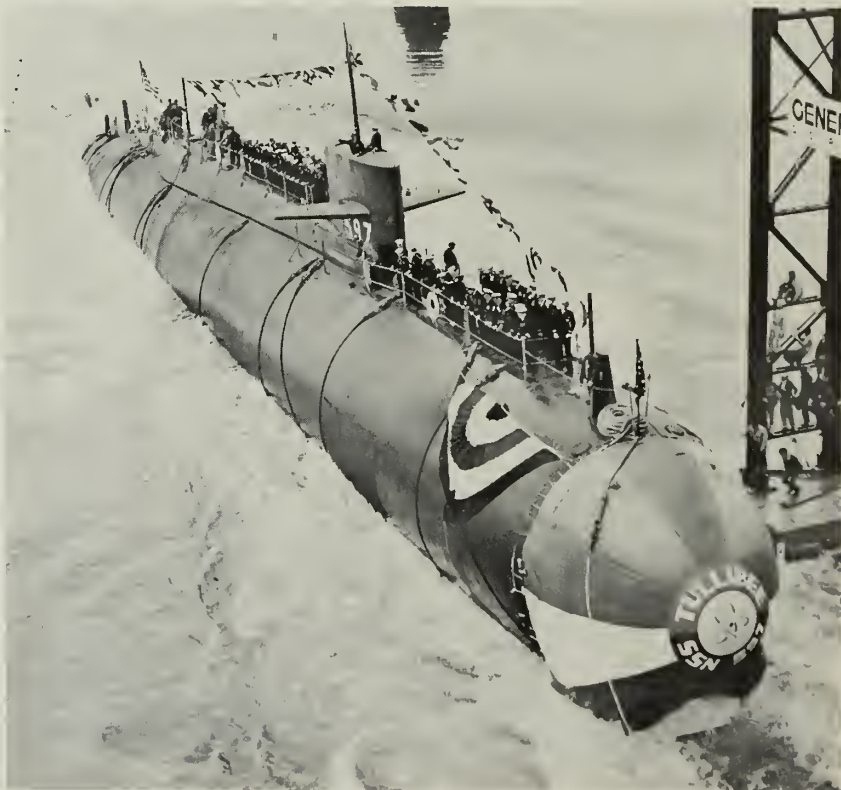
PhibRons on the Move

uss Pocono (AGC 16) and other ships in Amphibious Squadron Eight have returned to Norfolk, Va., after several months with the U.S. Sixth Fleet in the Mediterranean.

Among the returning ships are *uss Oglethorpe* (AKA 100), *Cambria* (APA 36), *Donner* (LSD 20), *San Marcos* (LSD 25), *Terrebonne Parish* (LST 1156), *Suffolk County* (LST 1173), and *York County* (LST 1175).

Relieving these ships in the Mediterranean was Amphibious Squadron Two. The ships in this group include *uss Mt. McKinley* (flagship) (AGC 7), *Chilton* (APA 38), *Thuban* (AKA 19), *Vermilion* (AKA 107), *Rushmore* (LSD 14), *Plymouth Rock* (LSD 29), *Traverse County* (LST 1160), *Wood County* (LST 1178), and *Wahkiakum County* (LST 1162).

En route to the Sixth Fleet, some ships loaded men and equipment of the First Battalion, 8th Marines, at Morehead City, N. C., and *Wahkiakum County* stopped at Davisville, R. I., to load construction battalion equipment and personnel.



FIRST BATH—Navy's new nuclear-powered submarine, *USS Tullibee*, SS(N) 597, designed primarily to seek out enemy submarines, slides into the water.

Touchdowns for RATCC

When an R5D transport, with CDR Richard L. Shafer, usn, at the controls, glided in for a landing at NAS Corpus Christi recently, it was something more than a routine touchdown.

The smooth (as usual) landing was the 130,000th accomplished under the direction of the Radar Air Traffic Control Center Unit 16.

RATCC-16 ranks second in the Navy only to NAS Moffett Field in total number of ground-controlled approaches completed. The Moffett Field installation, in operation since WW II days, had completed just under 135,000 approaches as of 1 June of this year.

Since its commissioning in 1948, when it was known as GCA-16, the air traffic control center has averaged about 30 ground-control approaches a day, or some 10,833 per year, in racking up its huge total.

A veteran Navy air controlman, James M. Jackson, ACL, USN, who has completed more than 6000 GCA runs in his nine years as a controller, acted as radar controller during the landing. Later, he and CDR Shafer collaborated at cake-cutting ceremonies marking the occasion.

Blast Off

In future emergencies a new nautical phrase may be shouted from the bridge of Navy ships. Instead of "Cast off," it may well be "Blast off," if a new device lives up to performance expectations.

The gadget, called a "shaped charge cutter" or explosion kit, consists of a small explosive charge that fits snugly around anchor chain or steel mooring cable. On electrical command it explodes, cuts the chain or cable, and allows rapid departure of ships.

Shaped charges that will cut along straight lines or follow the contours of irregular surfaces have also been developed. Such techniques have been useful for separating missile stages and destroying missiles.

Intruder, New Attack Bomber

A new low-level attack bomber, the A2F-1 *Intruder*, has been unveiled at Calverton, N.Y. It is the Navy's first such plane able to deliver nuclear or conventional weapons on targets completely hidden by weather or darkness.

The subsonic attack plane has sensitive radar and detection equip-



NEW AND IMPROVED — Beeman Recreation Center at Pearl Harbor submarine base has been remodeled with new features to please Navymen.

Here's a Good Place to Relax

Beeman's Recreation Center at the Submarine Base, Pearl Harbor, is now more popular than ever among Navymen seeking relaxation, comfort and entertainment.

About 80 per cent of the center has been remodeled, in a job which took over two months to complete. Now the place not only looks better, but also sounds better.

To put the Navymen in the proper mood, taped background music is played from the moment the doors open until closing time. The music can be piped into certain areas, or it can be sent throughout the building. A new public address system has also been added to the center's communication system.

Another new feature is a game room where shuffleboard, pinball, bowling and such are available. In addition, there's an acey-deucey and

beer bar with new furniture, a television room that's been expanded to hold about three times as many patrons as it did before, and a completely new cafeteria where hot meals and fountain service can be had.

Thursday through Sunday nights are dance nights at the club, with local bands providing music and entertainment. Beeman's dance floor can now accommodate 200 couples, and its new stage will now hold a 16-piece band.

Every Friday night a western band plays request numbers.

Over the dance floor is an aluminum sliding roof, which can be opened in good weather or closed when the weather gets bad.

Already well known to Pacific Fleet personnel, Beeman's now promises to become even more famous among Navymen.

ment which makes it ideal for close-support missions at night or in bad weather. It can fly long distances to deliver a nuclear haymaker, and can carry greater and more varied loads than any other naval attack aircraft in existence today.

A pilot of the *Intruder* can "see" the ground and air below and in front of the aircraft on two viewing screens inside the plane. Also in the A2F-1 is DIANE, a Digital Integrated Attack Navigation System designed to free the pilot from details which can be performed automatically. Acting upon information

provided by his integrated display system, the pilot can pre-select an automatic course of action which would allow the *Intruder* to approach its target, discharge its weapon, and leave the target area. Should the tactical situation require it, the pilot can change the plan.

The *Intruder* has a tilting tailpipe which provides additional lift for take-offs when dropped into the tilt position. This innovation gives the plane excellent short field take-off capabilities.

The swept-wing aircraft is powered by two turbojet engines.

Battle-Training for Polaris Submariners

The Navy's Submarine School at New London, Conn., is getting a new training facility which will electronically simulate full-scale battles involving *Polaris*-launching and other nuclear type submarines.

Using a giant computer and advanced electronic techniques, the training center will train the crews of nuclear submarines in the tactics of modern undersea warfare.

The attack centers of three different types of nuclear submarines, duplicated to the minutest detail, will be located within this new facility. Radar and sonar screens at the command posts of the submarines will show the maneuverings of many ships in the complex movements of undersea operations.

Periscopes for each sub trainer will simulate the view of targets on the surrounding horizon as seen from the periscope of a submerged submarine. The targets will appear in color at the correct relative bearing and at a size proportional to the range.

Each target, actually a tiny model on a mock sea viewed by closed-circuit television, will be automatically positioned to present the

correct aspect to the periscope, its height above the horizon being in keeping with its simulated distance from the periscope.

In addition to the simulated submarines, the training facility will have a Master Instructor's Console where realistic training problems can be presented to evaluate new tactics and submarine crew performance.

While instructors and sub commanders match wits, the encounter will be projected on a giant screen in a War Game Room where all phases of the action will be monitored.

Heart of the entire nuclear submarine training system will be a large-scale digital data processing computer, which will make the large number of computations required to control the electronic war games and interrelate the movements of ships, the performance of the simulated subs, directions from the instructor consoles, and information display in the War Game Room.

The computer also will calculate the action of the various weapons. In the case of a homing torpedo,

for example, the computer will simulate the search and attack of the torpedo homing onto its target.

The new nuclear submarine training facility will occupy an entire wing of a three-story building at the Submarine School at New London. It will offer three phases of training to the crews of *Polaris*-armed and other nuclear submarines. This training includes:

- A war-game type of operation designed to train senior command and staff officers in coordination of submarine striking groups and their air and surface support, and provide a system for use in developing tactics.

- A multiple attack teacher, simulating three submarines, for training the members of a submarine striking group in coordinated attacks and in coordinated self-defense, using new submarine weapons such as *Subroc* and *Astor* as well as the Navy's conventional torpedoes.

- The full capability of an individual attack teacher, to train the approach crew of a nuclear submarine how to make deliberate attacks on particular targets.

Plug for *Proteus*

Back in commission is *USS Proteus* (AS 19) the Navy's largest submarine tender, and the first designed to service Fleet ballistic missile submarines (SSBNs). *Proteus*, a World War II, *Fulton*-class sub tender, had been taken from the mothball Fleet early last year for a re-outfitting.

It was a big job and one which presented some tricky drydocking and engineering problems—problems that were overcome with novel but satisfactory solutions. Simple conversion was not enough. Quite a bit more space was needed. Specifications called for a 500-ton addition amidships: 44 feet long, 73 feet at the beam and six decks high.

A logical approach so it would seem, would have been to build the section as a separate "plug," float it into position on one of the sections of the cut-in-two *Proteus* and move the other section into position. Then join all three together.

However, that approach was discarded. The plug did not lend itself to launching; further, the method

would have presented additional ship-lifting and lofting problems.

The solution was to slice through the ship in drydock, seal the after end and flood the forward end. Then, to float the after end 44 feet down the ways and build the 44-foot section in place in drydock.

Workers sliced through the hull in two days, overcoming problems of weight, size and unsymmetrical distribution of mass. Next they re-floated and aligned the segments. And then the plug was completed.

Then came the big problem—that of joining the pieces. Though not normally a problem in ship construction, the expansion and contraction of the hull with a 30-degree temperature change every 24 hours here presented a tough problem. Normally the expansion and contraction of the hull is dissipated in the free movement of the smaller piece just joined. Not so in the case of *Proteus*. Here two large pieces of hull, when finally linked at the closing gap, would push inward and pull outward more than one inch—and with such force as to tear out large

amounts of welding from the ship.

The problem was met with a two-way attack. Water was piped over the hull surface; the exposed deck areas were painted white to reflect heat. Calculations showed that almost 1/10 of the welding needed to close the gap would have to be done in four hours to gain enough grip to withstand the tear-apart stress. The welding job was so done.

Some 44 days after the slicing through of *Proteus* the mass welding was completed. Work after that became mere routine.

Two days before her recommissioning, *Proteus* underwent her INSURV sea trials. Manned by her entire crew and coated over with new paint, the ship was put through her paces. The trials showed that there were no major deficiencies to prevent her from taking station later in the year. On station she will service and repair the *Polaris*-firing SSBNs. She will also carry stocks of the missile itself.

"*Proteus*" is a name out of mythology — that of a prophetic sea god.

—Tom Steward, PH1, USN.

Perry FRAMed

uss *Perry* (DD 844), first World War II-built ship renovated under the FRAM Mark I program, has rejoined the Fleet.

Crammed with new detection and communications devices, and armed with new long-range sub-killer weapons, she'll be a potent addition to the Navy's antisubmarine warfare program.

Perry is the first of more than 100 destroyer-type ships which will gain extra years of life and efficiency through the FRAM project. FRAM (Fleet Rehabilitation and Modernization) is aimed at supplementing new ship construction by prolonging the useful life of WW II-vintage ships.

Mark I treatment given *Perry* (much more extensive than the Mark II type the majority of the ships will receive) will add at least eight years to her seagoing life, at a cost of some eight and a half million dollars.

Perry entered Boston Naval Shipyard in a reduced operating status in May 1959. She was stripped of much of her superstructure, and her engineering plant and systems were rebuilt or thoroughly rehabilitated.

She was given a new look topside with the installation of the advanced detection gear and new weapons mentioned earlier. These included long-range sonar, improved radar,



NEW LOOK — This A2F-1 is Navy's first low-level attack bombers that can deliver nuclear or conventional payload in any weather, day or night.

ASROC (Antisubmarine Rocket) and Dash (drone antisubmarine helicopter) which will make it possible for *Perry* to attack targets at extended ranges, eliminating the necessity of closing with a hostile submarine before attacking it.

Perry was recommissioned earlier this year and underwent refresher training in the Caribbean. She will be home-ported at Key West, Fla.

Laulima Aumoku Kava

Not all emblems and insignia belong to fighter squadrons, warships and other front-line ships.

Now proudly wearing their own badge of honor are 25 ships—three

gasoline tankers, eight salvage ships, one auxiliary ocean tug, 11 Fleet ocean tugs, one tank landing ship and one surveying ship—which make up Service Group, Pearl.

The Pacific Service Force ships decided nearly a year ago to help promote morale and create a better sense of unity by adopting an emblem uniquely their own. They started with only one pre-fixed idea—since the entire group is Pearl Harbor-based, their shield must be symbolic of Hawaii.

This posed some problems. The Hawaiian language is lengthy and drawn-out. Much careful research later, the final selection contained the words "Laulima Aumoku Kava." In Hawaiian those words have the literal meaning "We humbly serve the warships." In English they translate to the proud slogan "We serve the Fleet."

Running across the shield on a 45-degree angle, this motto separates a seahorse on the left from a Hawaiian chieftain's helmet on the right. Above the shield are the words "Service Group Pearl" on a ribbon entwining the trident of King Neptune. An anchor extends from the bottom.

First ship of the group to display the brand-new coat-of-arms to the Fleet was the ocean tug *uss Arikara* (ATF 98.) It was painted on her superstructure just before her departure from Pearl Harbor on her latest tour of duty in the Western Pacific.

The other 24 ships of the group are displaying their emblem in slightly different fashion. A copy of the shield was taken to a Honolulu merchant, where three-foot by four-foot decals were made. Those decals have been given an aluminum backing, and attached to the ships' superstructures.



INITIATION — Terry D. Murray, making his first summer cruise with NROTC from Ohio State University, loads baggage on an aircraft carrier.

Brief news items about other branches of the armed services.

THE ARMY'S LACROSSE GUIDED MISSILE underwent a series of cold weather tests during the past two months at Fort Churchill, Manitoba, Canada.

The firings were held to demonstrate the field operation of the *Lacrosse* under Arctic conditions.

Lacrosse is a surface-to-surface field missile capable of carrying conventional or nuclear warheads. Test missiles fired in Canada were not fitted with atomic warheads.

Selected U.S. Army and Canadian personnel, some of whom trained at U.S. Army missile training establishments, conducted the trials on a joint basis.

The Canadian portion of the test team was made up of 25 members of the Royal Canadian Artillery and Royal Canadian Electrical and Mechanical Engineers. The U.S. team consisted of 26 missilemen from the U.S. Army Air Defense Center at Fort Bliss, Tex.

★ ★ ★

LITTLE ROCK AIR FORCE BASE in Arkansas will be this country's eighth support base for a *Titan* ICBM missile complex.

This new missile facility, manned by a total of about 1200 persons, will support 18 underground launch sites.

Titan support bases previously announced include Lowry AFB, Colo.; Davis-Monthan AFB, Ariz.; McConnell AFB, Kan.; Ellsworth AFB, S.D.; Mountain Home AFB, Idaho; Larson AFB, Wash.; and Beale AFB, Calif.

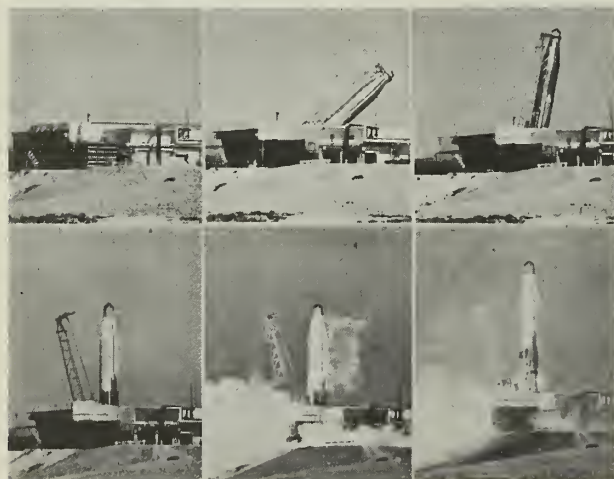
In addition to Little Rock, the first three AF Bases listed above will each support 18 missile launch sites, while the others will support nine each.

★ ★ ★

A LAND NAVIGATION SYSTEM that will keep vehicles on course when traveling over the Arctic, desert, or jungle is under development by the Army Engineer Corps.

The system consists of four lightweight units that provide constant heading and position information.

The units include a gyrocompass, an analog computer, a distance data transmitter and a power supply,



UNDERCOVER—USAF *Atlas* rises from underground pad to start 5000-mile trip down Pacific Missile Range.



GOING MY WAY—USAF C-124 opens to fly new Army amphibious armored personnel carrier to testing area.

having a combined weight of only 85 pounds. The units can be mounted in almost any vehicle.

Tests have shown that the system has an over-all accuracy of one-half per cent or 1/200 of the distance travelled. Service testing of the system is expected to be completed next year, and it probably will be available for troop use in 1961.

★ ★ ★

A FULLY AUTOMATED COMMUNICATIONS system, linking United States Air Force bases throughout the world, became a reality with the dedication of an automatic communications relay center at Siegelbach, Germany.

The center at Siegelbach, Germany, completes the nucleus of a "switching complex" that serves some 5,000,000 miles of Air Force circuits. Other overseas switching centers are in Hawaii, Japan, England and Spain. Throughout the network, messages will be transmitted between centers at the rate of 100 words per minute and within the switching centers at the rate of 200 words per minute. Five switching centers are leased from commercial facilities in the U. S.

The system is so designed that it is fully compatible with the communications systems of the Departments of the Army and Navy; that is, a message from Army or Navy stations can flow freely through these switching centers without manual processing.

★ ★ ★

A PORTABLE MISSILE SERVICE STRUCTURE that is 151 feet tall has been developed by the Army for servicing missiles of the *Redstone* and *Jupiter* classes, or any other missile up to 136 feet tall.

Until now, missile towers were either fixed or rail-mounted. This new, pneumatic tire-mounted structure weighs 350,000 pounds and is carried on two, six-wheel trailers. The outboard, rearmost wheels are driven by an electric motor. The front wheels are steered by hydraulically operated cylinders controlled by an electric sensing device running on a steering track.

When in position, two crane hooks operating from a "hammer-head" on top of the mobile tower, pick up

the missiles and set them in their launchers. Jack pads are lowered and the structure remains off its tires until the time for roll back.

The tower has six adjustable platforms (for use by engineers and scientists preparing a missile for flight), two elevators and a complete intercom system. It also has a "panic button" designed for use at the most critical moment of missile fueling. In the event of an emergency, a push of the button automatically slides the platform back from the missile, lifts the jacks off the ground and wheels the tower itself away from the danger area.

★ ★ ★

AN ATLAS ICBM has been fired by the Air Force more than one-third the distance around the world. Its 9000-mile flight—which began at Cape Canaveral, Fla., and ended 'on target' in the Indian Ocean off the southeastern tip of Africa—was the world's longest missile flight.

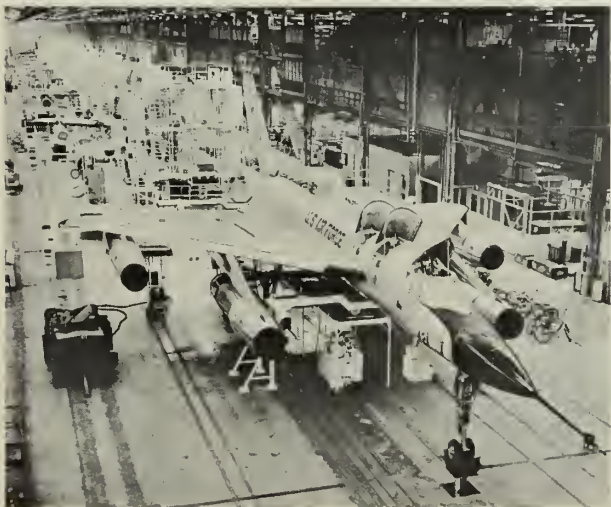
The *Atlas* intercontinental ballistic missile is operational in the Strategic Air Command.

This record flight was scheduled to obtain data on reentry at increased velocities resulting from longer range flights. Preliminary telemetry data indicates that the test objectives were achieved.

The trajectory of this long-range flight was carefully plotted entirely over water between South America and the Cape of Good Hope. Its apogee (point of greatest distance from earth) was approximately 1000 miles. No attempt was made to recover the unarmed Mark III operational type nose cone.

Ships and aircraft were stationed in the impact area to obtain telemetry from the missile. The observer ships and C-54 aircraft also performed range safety surveillance patrols over a wide area surrounding the impact point in the same manner that safety procedures and precautions were carried out for past open ocean missile launches over the Atlantic Missile Range. The impact area was outside shipping lanes and extreme safety measures were taken to assure that the area was clear before launching.

The *Atlas* which made the world's longest missile



DOWN THE LINE—Air Force *Hustler* B-58 bombers move down assembly line on work platforms in Texas factory.



MISSILE'S MISSILE—Army's improved Nike Hercules (left) takes off and intercepts Corporal ballistic missile (rt.).

flight was the 51st launched to date. It carried approximately 1000 pounds of normal research and development instrumentation during its 52½ minute flight.

Including this record breaking launch, 32 *Atlas* missiles have made successful flights, eight have been partially successful and 11 have failed.

★ ★ ★

A MID-CONTINENT LINK in the Army's world-wide communications network has been placed in operation at Fort Leavenworth, Kans.

It is the second and largest of three relay stations scheduled to go into service in the continental U. S. The first, at Davis, Calif., began operation in 1956, and the third is being completed at Fort Detrick, Md.

The Army's newest and most modern strategic communications center—the strategic gateway to overseas commands—is capable of handling 200,000 messages a day. With the latest developments in modern communications equipment available, the \$10 million Midwest Relay Station uses completely automatic message switching instead of the manual tape relay method. This permits receiving, processing and retransmittal of messages through the station without human intervention.

★ ★ ★

A HOUND DOG AIR-TO-SURFACE MISSILE has been successfully launched by a B-52 jet bomber of the Strategic Air Command after a 22-hour, 10,800-mile non-stop flight.

It was fired over the Atlantic Missile Range upon completion of a 10,000-mile flight from Florida to the North Pole and back. The eight-jet plane refueled in flight twice during its round trip—once high over the polar ice cap and again over Lake Superior on the return flight.

The *Hound Dog* performed evasive action on command during its flight and its accuracy was monitored and recorded by a chain of radar sites off the Florida Coast.

This operational air-to-surface missile was launched by the same Air Force crewmen who launched the first two operational *Hound Dog* Missiles in February 1960.

THE BULLETIN BOARD

Now Is the Time for All Good Men to Come to Aid of the Party

WHETHER AT SEA or stationed overseas, many Navymen—and their wives—will be able to exercise their voting privileges in this year's presidential election. For some, it will be for the first time. Like most of the other members of the armed forces, a majority of the ballots cast by Navy voters will be of the absentee variety.

The most important piece of advice to any Navyman who wants to vote, says the Navy's Federal Voting Assistance Officer, is to check with the officer in your command who has been appointed "Voting Officer." He has all the information you will probably need.

Here are a few important facts about your eligibility and the laws concerning your voting privileges:

A special application form has been printed and distributed by the U.S. Government for absentee voters. This is the *Federal Post Card Application for Absentee Ballot* (Standard Form 76, revised 1955), better known as the FPCA.

The FPCA may be used to apply for an absentee ballot and for absentee registration if authorized by your state or territory. All states accept the form under certain circumstances, but standards of acceptance and procedure vary from state to state. It is important to refer to the laws of your state before filling out your FPCA. If your state authorizes your wife to use an FPCA she must, of course, be a qualified voter of her state. It goes without saying that you must both be United States citizens.

In addition to individual requirements specified by the various states, these general rules should be followed:

- When filling out the card, print by hand or by typewriter. Which-ever method is used, be sure to include all information, and be sure it is clear and legible.

- Your name must appear twice—once printed or typed and once in your handwriting. Anyone may fill out the card but only the person for

whom the ballot is requested may sign it, unless the state specifies otherwise.

- In addition to giving street and number or rural route of your home, state the name of your county. This helps state officials speed action on the application.

- Military addresses, particularly in abbreviated form, are often confusing. Your present address should be so clearly printed or typed that no letter or digit will be misread.

- Your legal voting residence must be a place where you actually lived—not just a residence of record. No more than one such address may be given. If you have had more than one address in a state, give only the last, most current address.

- Whenever possible, certification should be made by your voting officer, commanding officer, or some other commissioned officer or authorized civilian, such as a notary public. Some states will accept certification by a petty officer.

- Before addressing your FPCA, check your state's mailing instruction. In some cases, the card is to be addressed to the Secretary of State

(who then sends it on to the proper local official); in other cases it is to be addressed to a local official, such as county clerk or auditor, or to an election board.

Mail the FPCA as early as your state permits. No postage is required.

If application for ballot or registration is made by letter instead of by FPCA, substantially the same information as required on the FPCA should be given. It is suggested that this form of application be subscribed and sworn to by a commissioned officer or authorized civilian. Otherwise, it may be returned.

Before you can register and vote, you must meet the eligibility requirements of your home state. Check the list below and then check with your command voting officer for details.

Age—All states except Alaska, Georgia, Hawaii and Kentucky require that a person be 21 years of age in order to vote in a general election. In both Georgia and Kentucky, however, 18-year-olds may vote. Nineteen is minimum age for Alaska, 20 years for Hawaii.

Residency—Every state and territory require a minimum period of residency as a prerequisite to voting. These requirements vary from state to state. In some states, six months' residency is all that is needed. In others, one must be a state resident for one or two years. South Dakota, for example, requires its voters to be a resident of the United States for five years, a state resident for one year, a county resident for 90 days and a resident of the precinct for 30 days.

Usually, the state, city, or county (or township or parish) in which you lived before entering the Navy is considered to be your legal residence for voting purposes—unless you have changed your legal residence while in the Navy.

Most states provide that time spent in the Navy may be included in the total residence requirement. For example, if the minimum residency requirement is two years and

All-Navy Cartoon Contest
J. F. Melvin, HM1, USN



"Why can't we put them in the oven and give everybody baked potatoes?"

a person lived in that state one year and then in the Navy for one year, he will have fulfilled the minimum residence requirement of two years.

A few states, however, require that a person meet the residency requirement before entering the armed forces in order to qualify for voting by absentee ballot. If you have any doubt about the requirements of your state, you should contact your voting officer. And even if you think that you have all the facts down pat, consult your voting officer anyway; he might have a few tips for you that have been missed.

Registration and Application — Most states require a person to be registered before voting and most of them also permit absentee registration. A few states require registration to be completed before election day.

In some states where registration is required, it is accomplished automatically when the absentee ballot and the attached registration affidavit have been properly executed and returned to the appropriate official.

A few states require re-registration periodically.

All states other than New Mexico will accept the Federal Post Card Application for ballot from persons desiring to vote. These post card applications are available to all personnel on active duty and their dependents. You may obtain them from your voting officer.

Be sure to make all necessary applications as early as your state will permit as the time element is most important. Check with your local voting officer for the details concerning the policies and procedures.

If you are a qualified voter, it is your privilege—and duty as a citizen—to cast your vote in every election.

Check with your local voting officer as soon as possible. He will also have information concerning the absentee voting privileges of your wife.

Note: The following state-by-state rules apply to service personnel. The regulations may be different for non-military personnel, and for wives and families of servicemen.

Alabama

Requirements — Residence: Two years in state, one year in county, three months in precinct. Must be able to read and write the U.S. Constitution, be of good character and a good citizen as determined by the

All-Navy Cartoon Contest H. W. Sweezey, SN, USN



"Take **ONE** pill with one-fourth glass of water if you have a headache; one-half glass if you have a stomach-ache; a full glass of water if you are thirsty."

Board of Registrars. Must be registered. Payment of poll tax not required of armed forces personnel and veterans.

Registration—Permanent, once you have registered. If not previously registered, register in person at the office of Board of Registrars in county of residence on the first and

third Monday of each month.

Election — Federal, state officers and presidential electors.

Application for ballot—Mail FPCA to County Register in Equity between 45 and five days before election.

Ballot deadline—Day of election is last day ballot will be accepted.

Alaska

Requirements — Residence: One year in state, 30 days in precinct. Must be able to read the Constitution and read and write English. Exception: Those who participated in the General Elections of 1924. Minimum age—19.

Registration—Not required in advance. Is a part of the voting procedure.

Election — Federal, state officers and presidential electors.

Application for ballot — Apply in writing to U.S. Commissioner in your district of residence within 90 days before election. Armed forces personnel may use FPCA.

Ballot deadline — Must be postmarked on or before day of election.

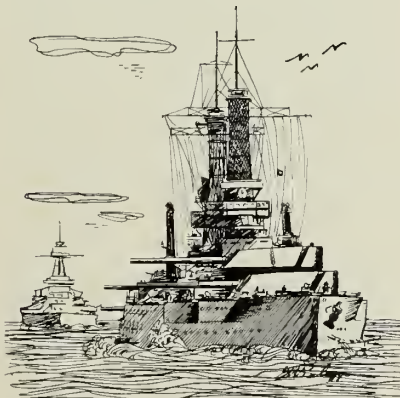
Arizona

Requirements — Residence: One

WHAT'S IN A NAME

The Sailing States

A custom no longer being carried out is that of giving names of states to warships. Over the years the names of 49 states have been carried by commissioned warships—all battleships with but two exceptions. *USS Alaska* was and is a CB, or large cruiser. *USS Montana* was a "first class armored cruiser" of the 1910 vintage.



First two of the battleships were *Texas* and *Maine*. Commissioned in 1895 as "sea-going double-bottomed armored vessels," they later became known as "second class battleships." First bona fide battleship—the No. 1—was *Indiana*, also commissioned in 1895. *Massachusetts* and *Oregon* were her sister ships.

Next came *Iowa* and *Kearsarge*. Carrying the name of a mountain in New Hampshire, she was the only battleship not named for a state. (The Act of 2 Mar 1895 under which it was built read in part: "... one of said battle ships shall be named *Kearsarge* . . .")

Hawaii missed out sailing to sea by about 20 per cent. *Hawaii* was to have been a large cruiser. Its keel was laid in 1943 but (when about 80 per cent complete) construction was suspended in 1947.

Montana was a two-time loser. The would-be BB-51 had its keel laid in 1920 but construction was canceled in 1922. The would-be BB-67 was authorized in 1940; construction was suspended in 1943. Both were to have been *USS Montana*.

year in state, 30 days in county and precinct. Be able to read the Constitution; write your name; be registered.

Registration — Permanent if you voted in last primary or general election. Apply by FPCA simultaneously for registration and absentee ballot.

Election — Federal, state and local officers and presidential electors.

Application for ballot—Mail FPCA to county recorder within 30 days prior to the Saturday before election.

Ballot deadline — Will be accepted up to 1800 on day of election.

Arkansas

Requirements — Residence: One year in state, six months in county, 30 days in precinct. Payment of poll tax not required by armed forces personnel.

Registration — Not required.

Election — Federal, state and local officers and presidential electors. Vote on constitutional amendments.

Application for ballot—Mail FPCA to county clerk within 60 days before election.

Ballot deadline — Will be accepted if it arrives before 1830 on day of election.

California

Requirement — Residence: One year in state, 90 days in county, 54 days in precinct. May vote for presidential electors after only 54 days in state. Be registered voter.

Registration — Permanent if you voted in last primary or general election. Apply by FPCA simultaneously for registration and absentee ballot.

Election — Federal, state and presidential electors.

Application for ballot — Apply by FPCA at any time to county clerk.

Ballot deadline — Postmarked no later than day of election; may be received by state no later than six days after election.

Colorado

Requirements — Residence: One year in state, 90 days in county, 15 days in precinct. Be registered voter.

Registration — Permanent if you voted in last election. Apply by FPCA for registration and absentee ballot.

Election — Federal, state, county officers, presidential electors.

Application for ballot—Mail FPCA to county clerk between 90 days and noon Saturday before election.

All-Navy Cartoon Contest L. E. Crutchfield, AN, USN



"Wouldn't it be easier to salute?"

Ballot deadline — Must arrive by 1700 on day of election.

Connecticut

Requirements — Residence: One year in state, six months in town. Read Constitution or Connecticut statutes; be of good moral character and sound mind; take oath of admission as voter; be registered.

Registration — Mail FPCA to town clerk at any time for registration.

Election — Federal, state and presidential electors. (NOTE: Former residents retain Connecticut voting rights for presidential electors for 24 months.)

Application for ballot—Mail FPCA to clerk of municipality two months before election.

Ballot deadline — Must arrive by 1800 day before election.

Delaware

Requirements — Residence: One year in state, three months in county, 30 days in precinct. Read state Constitution, write name, be registered.

Registration—Permanent by voting regularly. Apply by FPCA when requesting absentee ballot; or by writing for "Absentee Registration Affidavit" to Dept. of Elections, county of residence prior to 30 days before election. Return affidavit by 10 days before election.

Election—Federal, state, presidential electors.

Application for ballot—Mail FPCA to the Department of Elections, county of your residence any time before the general elections.

Ballot deadline — Must arrive before 1200 election day.

Florida

Requirements — Residence: One year in state, six months in county. Be registered.

Registration — Permanent if you voted once every two years. If it has lapsed, you may re-register when applying for absentee ballot.

Election — Federal, state, county and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to Supervisor of Registration, county of residence between 45 and five days before election.

Ballot deadline — Must arrive by 1700 day before election.

Georgia

Requirements — Residence: One year in state, six months in county. Read and write U.S. or Georgia Constitution; be of good character and a good citizen; be registered.

Registration — Permanent if you voted once every two years. Request "Military Registration card" from tax collector, tax commissioner or registrar in county of residence at any time. Register before applying for absentee ballot.

Election — Federal, state, county and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA any time to Ordinary, county of residence.

Ballot deadline — Must arrive before polls close election day.

Hawaii

Requirements — Residence: One year in state, three months in representative district. Speak, read, write English or Hawaiian; be registered. Minimum age, 20.

Registration — Permanent if you voted in last general election. Request "Affidavit on Application for Registration" form from County Clerk (City Clerk for Honolulu) at least 90 days before election. Return the form to reach clerk no later than fourth Wednesday before election.

Election — One U.S. Representative and presidential electors.

Application for ballot—Mail FPCA to County Clerk (City Clerk for Honolulu) between 60 and 10 days before election.

Ballot deadline — Must arrive by day before election to count.

Idaho

Requirements — Residence: Six months in state, 30 days in county. For county elections, 90 days in precinct. Read and write; be registered.

Registration — Permanent if you voted in each general election. Register when voting absentee ballot.

Election — Federal, state, county and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to county auditor any time up to five days before general election.

Ballot deadline — Must arrive before polls close election day.

Illinois

Requirements — Residence: One year in state, 90 days in county, 30 days in precinct.

Registration — Permanent if you voted once in last four years. Not required for armed forces personnel.

Election — Federal, state, county and presidential electors. Vote on bond issues.

Application for ballot—Mail FPCA to board of election commissioners or county clerk no earlier than 100 days before election.

Ballot deadline — Must arrive by day of election.

Indiana

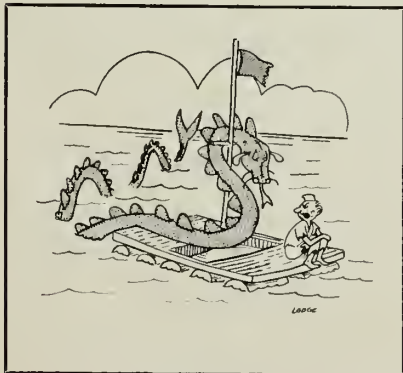
Requirements — Residence: Six months in state, 60 days in township, 30 days in ward or precinct. Be registered.

Registration — Permanent if you voted in each general election. Apply by FPCA for registration and absentee ballot.

Election — Federal, state, local and presidential electors.

Application for ballot—Mail FPCA

All-Navy Cartoon Contest
LT B. E. Lodge, USN



"Look, pal, go find your own life raft!"

Your Vote Really Counts— This Will Show You Why

Don't underestimate the power of your vote. It's all too easy to feel that one vote more or less couldn't make any difference.

Perhaps, but some elections—local and national—are surprisingly close. In 1916, for example, Charles Evans Hughes went to bed the night of the election confident that he had defeated Woodrow Wilson for the presidency. He awoke to discover that he had lost California by 3806 votes and, with that state, the electoral majority.

Some years earlier, James G. Blaine lost the state of New York by a margin of 1149 votes out of 1,167,169 cast in the election of 1884. If he had carried New York, he would have defeated Grover Cleveland.

And — because someone mis-marked his ballot in the Bamberg County, S.C., runoff primary this year, the state is going to have to run another election for sheriff. The candidates were deadlocked at 120 votes each.

to reach clerk of circuit court, county of residence 60 days before general election.

Ballot deadline — Must arrive by 1800 election day.

Iowa

Requirements — Residence: Six months in state, 60 days in county. Be registered in some places.

Registration — Execute affidavit on back of absentee ballot envelope.

Election — Federal, state and local officers, presidential electors, Supreme and District Court judges.

Application for ballot—Mail FPCA to county auditor, city or town clerk no earlier than 90 days before election.

Ballot deadline — Must arrive before election day.

Kansas

Requirements — Residence: Six months in state, 30 days in ward or township. Be registered in some cases.

Registration—Permanent by voting in general elections. Not required of armed forces personnel.

Election — Federal, state, local of-

ficers and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to Secretary of State, Topeka 65 days before general election.

Ballot deadline — Must arrive by 1300 day before election.

Kentucky

Requirements — Residence: One year in state, six months in county, 60 days in precinct. Be registered. Minimum age: 18 years.

Registration — Permanent if you voted two consecutive years. You will be registered when ballot application is accepted.

Election — Federal officers and presidential electors.

Application for ballot—Mail FPCA to county court clerk prior to 10 days before election.

Ballot deadline—Must arrive before polls close on election day.

Louisiana

Requirements — Residence: One year in state, one year in parish, three months in precinct. Be registered.

Registration — Permanent in some places by voting once every two years. If not previously registered, register in person any time except during 30 days before election.

Election — Federal, state and local officers and presidential electors.

Application for ballot—Mail FPCA or other signed request to clerk of

All-Navy Cartoon Contest
Charles Wise, HM1, USN



"I don't care how Mrs. Mulligan fixes her stew! We'll stick to our recipe!"

court (in Orleans to civil sheriff) any time.

Ballot deadline — Must arrive by day before election.

Maine

Requirements — Residence: Six months in state, three months in municipality. Read and write English; be registered.

Registration — Apply by FPCA for registration and absentee ballot.

Election — Federal, state, county officers and presidential electors. Vote on Constitutional amendments and referenda.

Application for ballot—Mail FPCA to Secretary of State, Augusta, or clerk of city or town of residence any time.

Ballot deadline — Must arrive before polls close on election day.

Maryland

Requirements — Residence: One year in state, six months in county. Be registered.

Registration — Permanent if you voted once in last five years. You are registered when voting by absentee ballot.

Election—Federal and presidential electors. Vote on Constitutional amendments and referendum.

Application for ballot—Mail FPCA or other application to Secretary of State, Annapolis, in time to be sent to board of supervisors of elections five days before election. Your wife may apply for an absentee ballot in writing to the board of supervisors of elections, city or county of residence no later than the 20th day before the election. She may use an FPCA if she includes under "Remarks" her name and residence address (as well as present address); a statement that she is a qualified voter of the ward or election district of residence; ward and district where she voted at the preceding election and a statement that she expects in good faith to be unavoidably absent from the state on election day, specifying the reason.

Ballot deadline — Must arrive before polls close on election day.

Massachusetts

Requirements — Residence: One year in state, six months in city or town. Must be able to read the State Constitution and write English; be registered.

Registration — Permanent. You are

September 27 Is Earmarked As Armed Forces Voting Day

The Navy is ready to help you cast your vote, but how you vote is strictly your own business. However, you have to do it yourself. No one can do it for you.

If you haven't cast your vote by 27 September, you'd better get busy. On that day, designated as Armed Forces Voting Day, your commanding officer and voting officer will do all they can to help and encourage you to apply for your absentee ballot if you haven't already done so. It's quite possible that your ship or station will plan special events and programs for the occasion.

And, you'll want to remember that, since the Federal Voting Assistance Program applies not only to you but to your family as well, your wife will probably be invited to participate in these activities.

The intent of all these efforts is to remind you to vote early enough to make your opinion count.

registered when ballot application is accepted.

Election — Federal, state, local officers, presidential electors.

Application for ballot—Mail FPCA to city or town clerk any time.

Ballot deadline — Must arrive before polls close election day.

Michigan

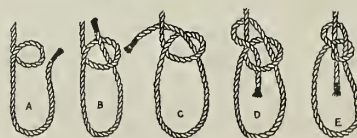
Requirements — Residence: Six months in state, 30 days in city or township. Must be registered.

Registration — Permanent if you voted once in four years (in some places, two years). Apply for duplicate registration forms when applying for ballots as early as 75 days before election. Return forms with ballot.

Election — Federal, state, local of-

Grains of Salt—

BOWLINE "KING OF KNOTS"



ficers and presidential electors.

Application for ballot—Mail FPCA to reach city or township clerk as early as 75 days before election.

Ballot deadline — Must arrive before polls close election day.

Minnesota

Requirements — Residence: Six months in state, 30 days in election district. Registration required in some places.

Registration — Permanent if you voted once in four years. Apply by FPCA for registration and absentee ballot.

Election — Federal, state, local officers and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to county auditor any time.

Ballot deadline — Must arrive before polls close election day.

Mississippi

Requirements — Residence: Two years in state, one year in election district. Read and write state constitution; be registered; pay \$2.00 poll tax except armed forces personnel and wives when voting by absentee ballot.

Registration — Permanent. Apply by FPCA for registration and absentee ballot. Complete registration four months before general election.

Election — Federal officers and presidential electors.

Application for ballot—Mail FPCA to reach city or county registrar within 60 days before general election.

Ballot deadline — Must arrive by day of election.

Missouri

Requirements — Residence: One year in state, 60 days in county. Registration required in some places.

Registration — Permanent if you meet voting requirements. Not required of armed forces personnel and their wives.

Election — Federal, state officers and presidential electors.

Application for ballot—Mail FPCA to clerk of county court or board of election commissioners, place of residence, any time, for "Official War Ballot."

Ballot deadline — Must arrive before 1800 the day after election day.

Montana

Requirements — Residence: One

year in state, 30 days in county or precinct. Be registered.

Registration — Permanent. Mail FPCA to reach county clerk prior to 45 days before election.

Election — Federal, state, local officers and presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to reach county, city or town clerk within 45 days before election.

Ballot deadline — Must arrive before polls close election day.

Nebraska

Requirements — Residence: Six months in state, 40 days in county, 10 days in precinct or ward. Be registered in cities of over 7000, and in Douglas and Lancaster counties.

Registration—Permanent where required. Apply by FPCA for registration and absentee ballot. Write in margin: "Please mail registration forms."

Election — Federal, state, local officers and presidential electors.

Application for ballot—Mail FPCA to county clerk (election commissioner in Douglas and Lancaster counties) at least 90 days before election.

Ballot deadline — 1000 the Thursday after election day; must be postmarked before midnight the day before election.

Nevada

Requirements — Residence: Six months in state, 30 days in county, 10 days in precinct. Be registered.

Registration—Permanent for armed forces personnel and their wives. Apply by FPCA for registration and absentee ballot.

Election — Federal, state and local officers, presidential electors. Vote on Constitutional amendments.

Application for ballot—Mail FPCA to county clerk between 90 and 15 days before election if in United States; between 90 and 10 days if outside United States.

Ballot deadline — Must arrive before polls close election day.

New Hampshire

Requirements — Residence: Six months in voting precinct. Name on Check List, at place of residence.

Registration — Check List corresponds to registration. Your name is placed on list when ballot application is accepted.

Election — Federal, state, local of-

ficers and presidential electors. Vote on measures.

Application for ballot—Mail FPCA to Secretary of State, Concord, for "Armed Services Ballot" at any time.

Ballot deadline — Must arrive before polls close election day.

New Jersey

Requirements — Residence: Six months in state, 60 days in county.

Registration — Permanent if you

voted once in four years. Not required of armed forces personnel and veterans in VA hospitals. Others: Register in person 40 days before election with commissioner of registration or county board.

Election — Federal, state, local officers and presidential electors.

Application for ballot—Mail FPCA to reach county clerk any time up to eight days before election.

Ballot deadline — Must arrive before polls close election day.

New Mexico

Requirements — Residence: One year in state, 90 days in county, 30 days in precinct. Be registered.

Registration — Permanent if you voted in last two elections. Registration in advance not required of armed forces personnel and wives.

Election — Federal, state and presidential electors. Vote on Constitutional amendments.

Application for ballots—Mail FPCA to Secretary of State any time after 1 July.

Ballot deadline — In time for Secretary of State to forward to county clerk by noon of day before election.

New York

Requirements — Residence: One year in state, four months in county, city or village, 30 days in election district.

Registration — Permanent in some places. Apply by FPCA for registration and absentee ballot.

Election — Federal, state, local officers and presidential electors.

Application for ballot — Mail FPCA to reach Division for Servicemen's Voting, Office of Secretary of State, Albany, prior to 11th day before election.

Ballot deadline — Must arrive by 1200, day before election.

North Carolina

Requirements — Residence: One year in state, 30 days in precinct. Read and write State Constitution; be registered.

Registration — Permanent except for armed forces personnel on leaving service. Apply by FPCA for registration and absentee ballot.

Election — Federal, state, local officers and presidential electors.

Application for ballot — Mail FPCA to Secretary of State, Raleigh, or to chairman, county board of elections,

NOW HERE'S THIS

New Chief, New Twist

On the day when Edwin G. Sandberg became a chief boatswain's mate, one of his first thoughts was of the Pearl Harbor custom of throwing new chiefs into the nearest swimming pool.

"No man is going to toss me into any pool," he asserted.

"Very well," assured his CO, "Your wishes will be respected."

That little matter taken care of, Sandberg was ready to go along with any other gag his initiation might include. He fell into line when a party appeared to escort him to the ceremonies, and it just so happened that this was in the general direction of the Pearl Naval Station swimming pool.

It was a happy group of marchers. A drummer beat the cadence and the new chief fell gaily into step with master-at-arms men, his buddies and five Waves who joined the procession.

Down to poolside the marchers came. Confidently, remembering his skipper's assurance, Sandberg ventured near the water. The male members of the party lagged behind.

Next thing he knew, the Waves had given him the heave ho and the deep six.

No man had tossed him in—but he was all wet anyway.



county of residence, any time.

Ballot deadline — Must arrive by 1500, day of election.

North Dakota

Requirements — Residence: One year in state, 90 days in county, 30 days in precinct.

Registration — Not required.

Election — Federal, state officers, presidential electors. Vote on referendum.

Application for ballot — Mail FPCA to reach county auditor, county of residence, within 30 days before election.

Ballot deadline — Must arrive within 20 days after election day.

Ohio

Requirements — Residence: One year in state, 40 days in county, 40 days in precinct. You may vote for presidential electors with less than one year's residence if otherwise qualified.

Registration — Permanent if you voted once every two years. Not required of armed forces personnel if voting by absentee ballot.

Election — Federal, state, local officers and presidential electors. Vote on local questions.

Application for ballot — Mail FPCA to reach clerk of county board of elections, county of residence, after 1 January.

Ballot deadline — Must arrive by 1200, day of election.

Oklahoma

Requirements — Residence: One year in state, six months in county, 30 days in precinct.

Registration — Permanent if you voted once in last four years (in Muskogee and Tulsa counties, once in three state elections). Not required for armed forces personnel and their wives if voting absentee ballot.

Election — Federal and state officers and presidential electors.

Application for ballot — Mail FPCA any time to Secretary of State, Oklahoma City.

Ballot deadline — Must arrive by 1700 Friday before election.

Oregon

Requirements — Residence: Six months in state. Read and write English; be registered.

Registration — Permanent if you voted once in two years. Apply by

All-Navy Cartoon Contest

LT B. E. Lodge, USN



FPCA for registration and absentee ballots.

Election — Federal, state, local officers and presidential electors. Vote on Constitutional amendments and referendum.

Application for ballot — Mail FPCA to county clerk or Secretary of State, Salem, within year of election.

Ballot deadline — Must arrive before polls close on election day.

Pennsylvania

Requirements — Residence: One year in state (six months if previously a resident and returned), two months in election district, precinct or division.

Registration — Permanent if you voted once in the last two years. Not required of armed forces personnel.

Election — Federal, state officers and presidential electors.

Application for ballot — Mail FPCA to Secretary of State, Harrisburg, or county board of elections, any time.

Ballot deadline — Must arrive by 1000 second Friday after election. Vote no later than election day.

Rhode Island

Requirements — Residence: One year in state, six months in town.

Registration — Permanent if you voted once in last five years. Not required of armed forces personnel and wives.

Election — Federal, state, local officers and presidential electors.

Application for ballot — Mail FPCA to Secretary of State, Providence, any time.

Ballot deadline — Must arrive before 5 December.

South Carolina

Requirements — Residence: Two

years in state, one year in county, four months in polling precinct. Read and write State Constitution or own \$300 in property with taxes paid; be registered.

Registration — Request "Registration Card" from Board of Registration, county of residence, any time. Return to Board prior to 30 days before election.

Election — Federal and local officers, and presidential electors.

Application for ballot — Mail FPCA any time to Board of Registration, or Secretary of State, Columbia.

Ballot deadline — Must arrive before polls close election day.

South Dakota

Requirements — Residence: Five years in United States, one year in state, 90 days in county, 30 days in precinct. Be registered.

Registration — Permanent if you voted in last general election. Mail FPCA for registration and absentee ballot to reach Registration Board, place of residence, prior to 20 days before election — after 1 August for general election.

Election — Federal, state and local officers and presidential electors. Vote on Constitutional amendments.

Application for ballot — Mail FPCA to county auditor, county of residence, any time.

Ballot deadline — Must arrive before polls close election day.

Tennessee

Requirements — Residence: One year in state, three months in county. Be registered.

Registration — Permanent if you voted in one state election in four years. Apply by FPCA for registration and absentee ballot.

Election — Federal and state officers and presidential electors.

Application for ballot — Mail FPCA to election commission, county of residence, or Secretary of State, Nashville, before 10 October if inside United States; before 1 September if outside United States.

Ballot deadline — Must arrive before polls close election day.

Texas

Requirements — Residence: One year in state, six months in county. Pay poll tax (\$1.50 state and, if required, \$.25 county tax) or have exemption certificate.

Registration — No registration, but

poll tax receipt and exemption certificate correspond to registration. See your voting officer for details.

Election — Federal, state and local officers and presidential electors.

Application for ballot — Mail FPCA any time to county clerk with poll tax or exemption certificate.

Ballot deadline — Must arrive by 1300 election day; vote between 20th and fourth day before election.

Utah

Requirements — Residence: One year in state, four months in county, 60 days in precinct. Be registered.

Registration — Permanent if you voted in last general election. Apply by FPCA for registration and absentee ballot.

Election — Federal, state and local officers and presidential electors.

Application for ballot — Mail FPCA to county clerk within 30 days before election.

Ballot deadline — Must arrive before polls close election day.

Vermont

Requirements — Residence: One year in state. Take Freeman's Oath and have name on town Check List; pay poll tax to vote in annual Town Meeting.

Registration — Voter's Check List corresponds to registration. To get on List, take Freeman's Oath in person or by mail. Apply by FPCA when applying for ballot.

Election — Federal, state, local officers and presidential electors. Vote on an Act.

Application for ballot — Mail FPCA to town clerk any time.

Ballot deadline — In time to be delivered to election officers before polls close election day.

Virginia

Requirements — Residence: One year in state, six months in county, 30 days in precinct. Be registered. Poll tax not required of armed forces personnel.

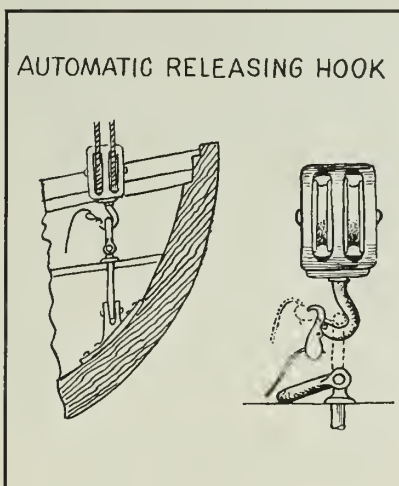
Registration — Permanent. Not required of armed forces personnel.

Election — Federal officers and presidential electors.

Application for ballot — Mail FPCA to Secretary of State or state board of elections, Richmond, any time.

Ballot deadline — In time for delivery to election officials before polls close election day.

Grains of Salt—



Washington

Requirements — Residence: One year in state, 90 days in county, 30 days in city or voting precinct. Read and speak English, be registered.

Registration — Permanent if you voted once in the last four years. Apply by FPCA for temporary registration and absentee ballot, or in person for permanent registration as other persons.

Election — Federal, state and local officers, presidential electors.

Application for ballot — Mail FPCA to Secretary of State, Olympia, any time before election.

Ballot deadline — Must arrive within 15 days after general elections; vote on or before election day.

West Virginia

Requirements — Residence: One year in state, 60 days in county and precinct. Be registered.

Registration — Permanent if you voted once in period of two primary and general elections. Request "Temporary Registration Form" from county clerk, county of residence, any time. Return to reach clerk prior to 10 days before election.

Election — Federal, state, county officers, presidential electors.

Application for ballot — Apply by FPCA to clerk of circuit court, county of residence, prior to 10 days before election.

Ballot deadline — In time to be delivered to election officials before polls close election day.

Wisconsin

Requirements — Residence: One year in state, and a residence of 10

days in election district or precinct.

Registration — Permanent if you voted once in last two years. Not required of armed forces personnel.

Election — Federal, state and local officers, presidential electors. Vote on joint resolution.

Application for ballot — Mail FPCA any time to county, city, town or village clerk (Board of elections commissioners, Milwaukee).

Ballot deadline — In time to be delivered to election officials before polls close election day.

Wyoming

Requirements — Residence: One year in state, 60 days in county, 10 days in voting precinct. Read state constitution, be registered.

Registration — Permanent if you voted once in last two years. Apply by FPCA for registration and absentee ballot.

Election — Federal and state officers, presidential electors. Vote on Constitutional amendments.

Application for ballot — Mail FPCA to county, city or town clerk, place of residence, any time.

Ballot deadline — Must arrive by Election day.

Mobile Clothing Store Makes Round of Washington

Navy personnel at naval activities in the Washington, D.C., area will no longer have to leave their home stations to obtain uniform and small stores items. From now on, the small stores will come to them.

Starting 1 Jul 1960, a mobile clothing store began operating between naval activities in the D.C. area that have no clothing and small stores of their own. The van carries an extensive line of uniform clothing.

By making periodic visits to these activities, the mobile shop will reduce the inconvenience and lost time for Navy personnel who formerly had to travel to another command for uniform clothing.

The van was provided and outfitted by the Bureau of Supplies and Accounts, designed by the U.S. Naval Supply Research and Development Facility, Bayonne, N. J., and operated by the U.S. Naval Station, Washington, D.C.

27,000 Navymen Now Earn Proficiency Pay

On 16 Jul 1960, some 27,000 Navymen and women began a one-year period of drawing proficiency pay (P-1). Here's a breakdown on the number in each rating who are drawing the extra \$30 a month as a

result of the May 1960 examinations. These figures do not include the 25,767 persons who were granted proficiency pay as a result of the November 1959 examinations. (See also box on next page)

Number Who Received Pro-pay					Number Who Received Pro-pay				
Rate	E-4	E-5	E-6	E-7	Rate	E-4	E-5	E-6	E-7
AB	—	289	87	1	FTM	167	—	—	—
ABG	102	—	—	—	FTU	32	—	—	—
ABU	209	—	—	—	GF*	—	—	22	8
AC	—	—	14	3	GM	—	—	44	19
ACR	26	37	—	—	GS	119	72	53	5
ACW	178	50	—	—	HM	—	—	43	120
ACT	180	183	—	—	IC	454	200	69	26
AD	—	—	44	70	IM	29	26	2	4
AE	—	532	25	5	JO	59	29	15	8
AE1	249	—	—	—	LI	49	41	20	1
AEM	591	—	—	—	MA	—	—	5	1
AG	231	93	58	2	ML	13	15	2	1
AK	—	—	5	10	MM	1013	621	346	251
AM	—	—	5	6	MN	74	93	14	14
AO	—	—	20	27	MR	213	107	40	13
AQ	—	114	7	22	MU	66	82	24	24
AQB	75	—	—	—	NW	83	37	44	11
AQF	180	—	—	—	OM	25	18	15	7
AT	—	941	355	220	PH	—	—	3	8
ATN	855	—	—	—	PM	17	9	3	4
ATR	503	—	—	—	PN	—	—	9	8
ATS	160	—	—	—	PR	—	—	14	6
BM	—	—	52	5	PT	10	14	6	3
BR	—	—	9	8	QM	227	218	10	55
BT	701	531	5	6	RD	602	298	114	53
BU	—	—	1	6	RM	1100	653	371	6
BUH	9	4	—	—	SD	—	—	8	2
BUL	53	49	—	—	SF	—	—	25	9
BUR	28	17	—	—	SFM	233	301	—	—
CE	—	—	33	8	SFP	216	234	—	—
CEP	16	16	—	—	SH	—	—	15	7
CES	9	7	—	—	SK	—	—	13	8
CET	8	7	—	—	SM	233	204	137	44
CEW	26	10	—	—	SO	—	—	49	40
CM	—	—	4	4	SOA	56	25	—	—
CS	—	—	13	8	SOG	243	123	—	—
CTA	83	58	56	1	SOO	29	—	—	—
CTM	105	52	24	1	SOS	76	43	—	—
CTO	114	98	45	1	SV	11	8	1	3
CTR	339	239	79	4	SW	—	—	4	3
DC	—	—	20	10	SWE	22	13	—	—
DK	—	—	8	9	SWF	13	23	—	—
DM	77	42	18	2	TD	—	153	16	10
DTG	—	—	5	4	TDI	149	—	—	—
DTP	—	—	3	3	TDR	66	—	—	—
DTR	—	—	2	—	TM	241	317	6	53
EM	1054	656	178	7	UT	—	—	2	3
EN	—	—	17	24	UTA	15	10	—	—
EO	—	—	7	9	UTB	8	8	—	—
ET	—	437	63	163	UTP	39	40	—	—
ETN	472	—	—	—	UTW	6	8	—	—
ETR	569	—	—	—	YN	—	—	56	70
ETS	37	—	—	—	Recruiters	—	—	11	12
FT	—	316	32	5	Total	13,617	8821	2925	1574
FTA	278	—	—	—	Grand Total — 26,937				
FTE	1	—	—	—	*Even though this rate is being disestablished, those selected to draw pro pay will continue to receive proficiency pay in their new rating.				
FTG	3	—	—	—					
FTL	88	—	—	—					

Korean Service and National Defense Medals Now Available from BuPers

The National Defense and Korean Service Medals are now available to naval personnel, including veterans. Lack of funds had delayed distribution of these medals.

The National Defense Service Medal is authorized for all persons in the naval service who served on active duty at any time between 27 Jun 1950 and 27 Jul 1954, except Reservists on active duty for training or on active duty for short periods to serve on boards, courts, etc.

The Korean Service Medal is awarded to those who served in the prescribed Korean area between 27 Jun 1950 and 27 Jul 1954, under specified terms. For example, if you were on sea duty for one or more days in the designated area, while attached to and serving on board a Navy ship or other vessel to which regularly assigned for duty, you are eligible. In addition, if you were attached to an organization that took part in combat operations or in direct support of combat missions, and served regularly on shore in the designated area for one or more days, you are eligible. Service of 30 consecutive days or 60 nonconsecutive days in the prescribed area is required for personnel on TAD, except in instances where a ship, aircraft, or unit engaged in combat with, attacked, or was attacked by, enemy forces; in these circumstances, all U.S. naval personnel serving in the ship, aircraft or unit are eligible for the medal, without regard to the time limit. Personnel embarked in a hospital ship for passage as a patient are considered as attached to the ship.

Submit your request to the Chief of Naval Personnel, Department of the Navy, Washington 25, D.C., via official channels.

New York State Revises Law On Hunting, Fishing Licenses

Before you plan a hunting or fishing expedition in New York state, you'd better check the new laws. You may need a license.

The New York state legislature has amended the laws which allowed military personnel on active duty to take fish and wildlife (except

deer and bear) without obtaining the licenses normally required.

Beginning 1 July, the exemption applies only to those servicemen who are legal residents of New York State and are stationed outside the state. You are then exempt for the first 30 days of any leave you take in the state.

All others are required to have hunting, fishing or trapping licenses to participate. If stationed in New York, servicemen are eligible for resident licenses regardless of the length of time stationed there—that is, there is no waiting period for service personnel. If you are stationed outside the state and you are not a legal New York resident, you must obtain a non-resident license to hunt or fish.

First Group of Navymen Earn Pro Pay at Higher Level

On 16 July, 1250 Navymen in nine technical ratings were awarded Proficiency Pay, grade P-2. To be eligible for this extra \$60 a month, the men were required to be second, first or chief petty officers in one of nine technical ratings selected by the Navy. In addition they had to be working in that rating, already drawing pro-pay P-1, recommended by their commanding officers, and were required to pass the Fleet-wide examination with a high enough score to be selected.

Here are the numbers in each rating that were among this first group of Navymen ever to be awarded proficiency pay, P-2. They will receive the \$60 a month for one year, at which time they must requalify or lose it.

RATE	E-5	E-6	E-7
AT	99	87	85
CTA	8	5	2
CTM	4	4	3
CTO	9	7	3
CTR	15	10	5
ET	94	74	56
FT	44	4	2
GS	9	2	2
NW	6	6	5
RD	70	56	27
RM	122	174	18
SO	—	43	47
SOA	10	—	—
SOG	22	—	—
SOS	11	—	—
TOTAL	523	472	255

Open Rates Are Listed For Naval Reservists Seeking Transfer to USN

The Chief of Naval Personnel has designated 123 open rates in which Naval Reserve personnel who served on active duty before 1 Sep 1958 may enlist in the Regular Navy after they complete their current obligated active duty.

This revised list is part of a continuing effort to afford qualified Naval Reservists on active duty an opportunity for a career in the U.S. Navy. If your rate is listed, here's your chance.

The open rates recently announced as change five to BuPers Inst. 1130.4F include:

QM2, 3	SF3
SM1, 2, 3	PM1, 2, 3
RD1, 2, 3	ML3
SOC, 1, 2, 3	SVC1, 2, 3
TMC, 1, 2, 3	CE1, 2, 3
GM3	CM3
GS2, 3	BU2, 3
FT2, 3	SW2, 3
NWC, 1, 2, 3	AD3
MN3	AT1, 2, 3
ETC, 1, 2, 3	AO3
OM1, 2, 3	AQ1, 2, 3
RM1, 2, 3	AC3
CT1, 2, 3	AB2, 3
JOC, 1, 2	PR2, 3
SK2, 3	AG1, 2, 3
MUC, 1, 2, 3	TD3
DM1, 2, 3	AK3
MM1, 2, 3	PH2, 3
EN2, 3	PTS, 1, 2, 3
MR1, 2, 3	AN, AA, AR
BT2, 3	SN, SA, SR
BRC, 1	DN, DA, DR
EM1, 2, 3	TN, TA, TR
ICC, 1, 2, 3	

New Correspondence Courses For Officers, Enlisted Men

Three new correspondence courses—two enlisted and one officer—have been issued by the Bureau of Naval Personnel, and two enlisted courses have been discontinued.

The new enlisted courses, both of which may be taken for repeat Naval Reserve credit, are *Steelworker 3 and 2* (NavPers 91589-1) and *Electrician's Mate 3 and 2* (NavPers 91524-1). The new officer's course, which is classified as Confidential, is *ASW Operations* (NavPers 10406).

Electrician's Mate 3 (NavPers 91523-D) and *Electrician's Mate 2* (NavPers 91524-F) are the discontinued correspondence courses.

QUIZ AWEIGH

Even in today's futuristic Navy, a sailor just isn't with it unless he uses a seafarer's lingo. Here are a few salty terms or expressions. Go over them and see how well versed you are when it comes to their origin and meaning.

1. No doubt you heard about Charley Noble upon your arrival at boot camp, if not sooner. This nautical term for a ship's galley smoke stack was first used by the British and by U.S. Navymen since (a) 1780, (b) 1850, (c) 1900.



2. When assigned the Graveyard Watch, you would be on watch from (a) 2400 to 0400, (b) 0400 to 0800, (c) 2000 to 2400.

3. To the old timers (and we do mean way back when) a "Donkey's Breakfast" was a (a) reprimand, (b) keelhauling, (c) sailor's bed.

4. In yesteryears a Sea Corporal was the custodian of all swords, pistols, carbines and muskets. Today, they are still around but under a different title and have somewhat different responsibilities. A Sea Corporal in today's Navy would be called (a) Gunner's Mate, (b) Master at Arms, (c) son of a gun.



5. Today, perhaps more than ever before, a good number of career Navymen are "swallowing the anchor." This salty term means (a) they ate too much, (b) said what they shouldn't have, (c) getting out after 20.

6. The term "chit" which applies to practically any piece of paper, whether a simple printed form or an official letter, was once used for money. This nautical term was derived from "citthi" which means money in (a) Chinese, (b) Hindustani, (c) Portuguese.

The answers to this month's quiz can be found on page 53.

Deadline Is Nearing for Navymen Planning to Apply for NROTC

IF YOU HAVE PLANS to take advantage of the opportunities offered by the Navy to improve your educational background, you'd better get moving. The deadline for the Navy's 1961 NROTC program is rapidly approaching. A nomination from your commanding officer must be received by the Chief of Naval Personnel by 20 Oct 1960.

Provided your nomination reaches the Bureau on time, and if you are considered qualified, your skipper will receive a copy of the Navy College Aptitude Test, which you'll take on the Fleet-wide test date on 10 December.

This test and your physical examination are the controlling factors which determine whether your application will be given further consideration.

The names of those who pass the college aptitude test will be published next spring, and next summer, if you're still interested in the program, you'll be ordered to the Naval Preparatory School at Bainbridge, Md. If you negotiate the Prep School successfully you'll be appointed midshipman in the Reserve and sent to an NROTC Unit at the school of your choice to begin your studies.

While you're studying for a baccalaureate in a field you select, the Navy will provide you with:

- All tuition, books and fees.
- Retainer pay of \$50 a month for four years.
- The required uniforms for wear at drills, on cruises, and at other functions for which uniforms may be prescribed.
- Three eight-week summer cruises, during which you'll receive practical training and firsthand experience. Two of these cruises will be to choice liberty areas such as Europe and South America. The third normally takes you to Little Creek, Va., and Corpus Christi, Tex., for amphibious and aviation training.
- Upon graduation a commission as ensign in the Regular Navy or second lieutenant in the Regular Marine Corps.

Sounds like a good deal—and it is—but it's not all beer and skittles. Although the midshipman who enters the program from active duty

enlisted status retains his enlisted rate on a suspended basis (in case you are separated from the program), you receive only your retainer pay of \$50 a month, or the increased pay you get during summer cruises.

This is definitely not enough to make you the richest man on campus. In fact, experience has proved that you will probably need an additional \$300 to \$600 per year—depending on the school and your tastes to meet all expenses. Unless your family can help you out, or you can save some cash beforehand, digging up that much money can be quite a problem especially when you are so busy with your studies that it would be almost impossible for you to take a part-time job.

"That's no problem for me," you might be figuring to yourself, "I'm all set to get married and I know my wife wouldn't mind working long enough for me to get through school."

This isn't the solution either. In order to get into the program you must be single, and agree to stay that way until you're commissioned as an officer.

Largely because of the problem of finances, the Navy is not getting as many active duty applicants for Regular NROTC as it would like to have, so the odds in favor of being nominated for the program are better than you might think.

The program is open to Regular and Reserve enlisted men on active duty and to inactive Reservists and civilians. Each year some 1600 candidates are selected for it. Of that

number, 160 candidates are Navymen or Marines who've applied while on active duty.

The names of those who pass the college aptitude test will be published in March, and next summer, you'll be ordered to the Naval Preparatory School at Bainbridge, Md., where you'll get a chance to brush up on your studies. After that (providing, of course, that you get through the Preparatory School successfully) you'll be appointed midshipman in the Reserve, and sent to one of 52 NROTC Units.

While in college you may take any course leading to a bachelor's degree EXCEPT the following:

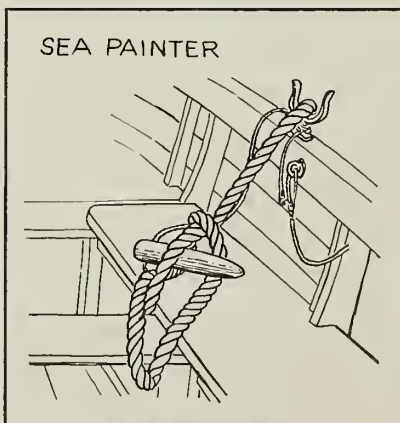
Pre-Medicine, Pre-Dental, General Agriculture, Dairy Production, Soils, Wildlife Management, Soil Conservation, Hotel Administration, Anthropology, Pre-Veterinary, Pre-Theological, Agronomy, Dairy Manufacturing, Horticulture, Real Estate, Religion, Landscape Architecture, Physical Education, Pharmacy, Music, Art, Law, Poultry Husbandry, Dairy Husbandry, Floriculture, Animal Science, Entomology, Dramatics, Industrial Arts, or Animal Husbandry. Except for these courses the field is wide open to you.

There are some courses you'll be required to take. You must have 24 semester hours, or the equivalent in quarter hours, of naval science. You'll also need to complete one year of college mathematics and one year of college physics by the end of your sophomore year. And, you'll be required to achieve proficiency in written and oral English, meeting the standards established by the college you attend. Outside of these few restrictions and requirements, you'll be practically on your own for the four years of schooling.

Upon graduation you'll be commissioned and ordered to active duty for four years. Depending on the needs of the service at the time, your commission will be as an ensign (Line) in the Navy, a second lieutenant in the Marine Corps or an ensign in one of the Navy's staff corps. You'll be given a chance to indicate which branch you'd prefer.

Most of the graduates take Line commissions in the Navy. If you apply, and are qualified, you may

Grains of Salt—



receive immediate assignment to flight, submarine or nuclear training.

Once you are commissioned you'll be considered a career officer in every sense of the word, since the Regular NROTC program is designed as a supplement to the Navy Academy's output. However, during your third year of commissioned service you must indicate whether or not you want to continue your career as a Regular Officer. All those who apply will be screened, and those who are selected, within the authorized strength established at the time, will continue their careers in the Regular Navy or Marine Corps.

Those who do not apply, or who are not selected for retention will be re-appointed as Reserve officers. They will be retained on active duty for an additional year to complete four years of active duty unless sooner released by the Secretary of the Navy, at which time they may be ordered to inactive duty to fulfill the remainder of their original six-year obligations.

Sound worth looking into? The eligibility requirements can be found in Articles C-1202 and C-1204 of the BuPers Manual. Briefly, here's what it takes:

- You must be on an enlistment or extension of an enlistment which will not expire before 1 September of the year in which you will enter college.
- You must have reached your 17th—but not your 21st—birthday on 1 July of the year in which you wish to enter the program. However, for men on active duty, the upper age limit will be waived if you have previous college credits, and if you will not have reached your 25th birthday by 1 July of the year in which you graduate from college. To establish this waiver, you will have to submit a college transcript.
- You must be a high school graduate or possess the equivalent

educational background or high school certificate which would be acceptable for admission to an NROTC college or university.

- You must be a U.S. citizen.
- You must be unmarried and agreed to remain unmarried until commissioned.
- You must be of good moral character, have the potential for leadership and be recommended by your commanding officer.
- You must pass a physical examination conducted by two medical officers. (The final determination of your physical qualifications is subject to review and decision by the Chief, Bureau of Medicine and Surgery, and to the approval of the Chief of Naval Personnel. No waivers of physical defects will be granted.)

Foreign Language Courses Are Available for Certain Personnel At Naval Intelligence School

Length of courses and other details about foreign language instruction at the Naval Intelligence School (Washington, D.C.) have been spelled out in a recent directive.

In BuPers Inst. 1520.27B are listed the three languages of the six-weeks' "Getting Along and Getting Around" courses: French, German, and Portuguese. An eight-weeks basic Spanish course is also provided.

The main body of instruction deals with the interpreter-translator courses. Ranging from 19 weeks to 60 weeks, these courses attempt to provide the student with a practical command of the written and spoken language. Courses in this group are:

Arabic—41 weeks	Portuguese—
Chinese—60 weeks	22 weeks
French—19 weeks	Russian—36 weeks
German—36 weeks	Spanish—19 weeks
	Turkish—37 weeks

Officers are eligible to *apply* for language instruction. They are ordered to these courses only when their services are needed in a billet calling for the foreign-language ability "immediately upon reporting aboard."

Certain enlisted men scheduled for duty in a Naval Security Group, MAAG, Mission or Naval Attache post are, from time to time, ordered to a course of instruction at the school. However, applications from enlisted personnel, other than Naval Security Group, are not desired.

The Navy, along with the other branches of the armed forces, differs from the usual method in the matter of displaying the national ensign ashore. It is flown at (or near) the headquarters of commands ashore from 0800 to sunset.

"It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flag-staffs . . ." according to Public Law 829—77th Congress, as amended by Public Law 107—83rd Congress.

This law is in the form of a resolution and is often termed the U.S. Flag Code. ". . . Displayed on all days when the weather permits," is the way another part of the code reads. It should especially be flown on New Year's Day, Inauguration Day (20 January), Lincoln's Birthday, Washington's Birthday, Army Day (6 April), Easter Sunday, Mother's Day, Memorial Day (half staff until noon), Flag Day, Independence Day, Labor Day, Constitution Day (17 September), Columbus Day, Navy Day (27 October), Armistice Day, Thanksgiving Day, and Christmas Day. Also, "such other days as may be pro-



claimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays."

The quoted matter is from the Flag Code. The code is provided for the "use of such civilians or civilian groups or organizations as may not be required to conform with regulations."

There are a few locations where the national ensign is regularly flown both day and night. These are:

- Fort McHenry, Baltimore, Md.
- The World War I Memorial, Worcester, Mass.
- The Francis Scott Key Memorial, Frederick, Md.
- The "Flag House," Baltimore, Md.
- The Plaza at Taos, N.M.
- "Field of Honor," Sunset Hills Cemetery, Jamestown, N.Y.
- Riverdale Cemetery, Niagara Falls, N.Y.

Pennsylvania Hall, Gettysburg, Pa.

Mt. Suribachi, Iwo Jima.

One very famous building flies not one, but two, national ensigns "full time." The Capitol Bldg., Washington, D.C. displays one flag over the east front, another flag over the west front.

ANSWERS TO THIS MONTH'S QUIZ AWEIGH

1. (b) 1850.
2. (a) 2400-0400.
3. (c) Sailor's bed.
4. (b) Master at Arms.
5. (c) Getting out after 20.
6. (b) Hindustani.

Quiz Aweigh appears on page 51.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instruction, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 12—Quotes letter from the Secretary of the Navy to the president of the fiscal year 1961 flag selection board.

No. 13—Directs commands to insure that all personnel in their commands fully understand the necessity of complying with customs regulations.

No. 14—Announced the convening of boards for the selection of line and staff corps officers on active duty (except TARs) for promotion to the grades of captain and commander and for the continuation of USN officers on the active list in the grade of commander.

No. 15—Added a new Article (58A) to the UCMJ, concerning automatic reduction in grade.

No. 16—Announced approval by the President of the report of selection boards that recommended officers for temporary promotion to the grades of major general and brigadier general in the Regular Marine Corps.

No. 17—Announced approval by the President of the Report of the selection board that recommended USN line officers for temporary promotion to the grade of rear admiral.

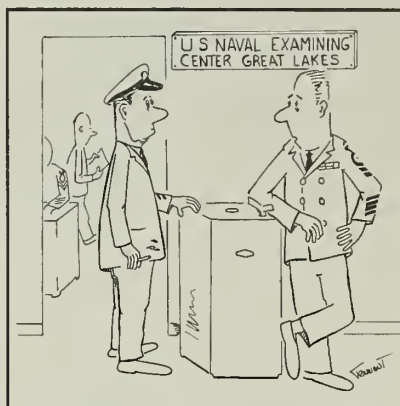
No. 18—Cited certain recommended procedures in courts-martial to comply with a recent decision.

Instructions

No. 1430.12B—Provided instructions for the administration of the Proficiency Pay program.

No. 1760.3C—Provides a current summary of state bonuses for veterans of World War II, and those

All-Navy Cartoon Contest
T. H. Tennant, YNC, USN



"For which of the following reasons will I not loan you ten bucks? One: UCMJ says it's unlawful. Two: BuPers Manual forbids it. Three: Navy Regs say no. Or, Four: You still owe me five from last month!"

with service after 20 Jun 1950.

Notices

No. 1760 (5 July)—Announced the distribution and availability of two pamphlets: "Going Back to Civilian Life" (NavPers 15855-D), and "Your Personal Affairs" (NavPers 15900A).

No. 5000 (5 July) — Alerted commanders to correspondence and advertising matter which have the appearance of official naval correspondence.

No. 5812 (11 July)—Requested a report on the number of nonjudicial punishments awarded enlisted personnel during 1 Jul 1959 to 30 Jun 1960.

GI Home, Farm and Business Loans Extended for Vets

World War II veterans have two more years in which to obtain Veterans Administration-guaranteed home, farm and business loans.

As the result of a bill signed into law on 14 Jul, both World War II and Korean veterans can continue to apply for direct loans from the Federal government if they live in designated rural areas where GI loans are not obtainable from the local lending institutions.

New expiration date for the guaranteed loan program for World War II veterans and for the direct loan program for both World War II and Korean veterans is 25 Jul 1962.

While both World War II and

Korean veterans may now apply for direct loans through 25 Jul 1962, Korean veterans may continue to seek VA-guaranteed loans through 31 Jan 1965, as provided for by previous legislation.

List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution began in July.

It Happened In Rome (1543) (C) (WS): Comedy; June Laverick, Isabelle Corey.

The Snow Queen (1544) (C): Fairy tale; Narrated by Art Linkletter.

The Strawberry Blond (1545): Drama; James Cagney, Olivia DeHavilland.

Man On a String (1546): Drama; Ernest Borgnine, Kerwin Mathews.

The Third Voice (1547) (WS): Melodrama; Julie London, Laraine Day.

The Threat (1548): Drama; Robert Knapp, Linda Lawson.

Whiplash (1549): Drama; Dane Clarke, Alexis Smith.

Time Machine (1550) (C): Science-Fiction; Rod Taylor, Yvette Mimieux.

The Big Fisherman (1551) (C) (WS): Biblical Drama; Howard Keel, Susan Kohner.

All the Fine Young Cannibals (1552) (C) (WS): Drama; Robert Wagner, Natalie Wood.

Wake Me When It's Over (1553) (C) (WS): Comedy; Ernie Kovacs, Margo Moore.

San Antonio (1554): Western; Errol Flynn, Alexis Smith.

Key Witness (1555) (WS): Drama; Jeffrey Hunter, Pat Crowley.

Once More With Feeling (1556) (C): Comedy; Yul Brynner, Kay Kendall.

Knute Rockne (1557): Drama; Pat O'Brien, Gale Page.

Because They're Young (1558): Drama; Dick Clark, Tuesday Weld.

BOOKS

THESE WILL HELP YOU COME TO THE AID OF YOUR PARTY

YOU HAVE ONLY ONE VOTE in the upcoming Presidential elections, so it's up to you to use it as wisely as possible. To help you, the Library Branch has selected a list of books which will give you a brief rundown on the major parties, the office of the President, scads of facts and figures, and what you can do as a citizen. If you like this taste of politics, you'll find many other books in your ship or station library concerned with other aspects of politics and government.

Two titles, *Readings for Republicans* and *Readings for Democrats*, edited by Franklin L. Burdette and Edward Reed respectively, will give you a pretty good idea of what each of our major parties considers important. In *Republicans*, the philosophy of the Republican Party is set forth in the words of its leaders. From Lincoln to Eisenhower, here are the views of the Party leadership on liberty and human dignity, on economy and the public interest, foreign policy, and the role and record of the Party.

The treatment for *Democrats* is similar but, as might be expected, the subject matter is considerably different. Here is a portrait of the Democratic Party from its beginning under Thomas Jefferson to its present status.

The two *Readings* describe our political parties as they would like to be. *Jumbos and Jackasses*, by Edwin Palmer Hoyt, Jr., is a little more realistic. He adopts a highly irreverent approach to the presidential campaigns since Republicans and Democrats first squared away at one another in 1860 when Lincoln and Stephen Douglas were nominated. From that point, he records dull cam-

paigns and vicious ones, triumphs of principle and of avarice, violent conventions in which men not only threatened to punch their opponents in the nose, but did so. You may not learn about the major issues of today, but you will enjoy it.

Our Presidents, by James Morgan, is a collection of biographies of the presidents up to the present. The first edition of this book appeared some 35 years ago but it has been in such demand that it has been constantly revised to keep it up to date. In addition to the biographical material, it includes photographs of the presidents, their wives, homes and families, and a tabulated history.

There's little excuse for not knowing what the office of the president is all about. *The American Presidency*, by Clinton Rossiter, brought up to date and expanded, describes just that. In addition to revision throughout the book, Rossiter has added new chapters on the problem of presidential succession, and on the methods of nominating and electing presidents. He offers judgment of the qualifications — personal, political, religious — necessary for the successful presidential candidate today.

Candidates 1960, edited by Eric Sevareid, is a guide to the personalities, issues and significance of the next presidential election. In his discussion of the ideal candidate, Sevareid analyzes the standards by which candidates are chosen and the way campaigns are run in this age of mass persuasion. Defining the criteria for good candidates — and good presidents—he then comments on the leading political figures.

1600 Pennsylvania Avenue, by Walter Johnson, is a little specialized. It discusses the presidency since 1929 and the men who lived at that address since that time. It covers the period of the depression, the New Deal, the development of modern U.S. foreign policy, the dropping of the atom bomb, the limited war in Korea, the creation of space satellites and other events — all in terms of the presidency. Johnson also discusses at some length the personalities of the four men who have occupied the White House since 1929.

If you haven't found what you're looking for in the list of books de-

scribed above, you're sure to do so in either *The Voter's Presidential Handbook*, by John A. Wells, or *Facts About the Presidents*, by Joseph N. Kane. Neither could be recommended for light summer reading, but they do have facts. *Facts* devotes a chapter to each president, in which his family is described, followed by data on elections, congressional sessions, cabinet appointments and the vice president, as well as highlights of the Presidential life and administration. This is followed by material in comparative form, with collective data and statistics on the presidents as individuals and on the office of the president. (For example, one section gives the titles of all the books written by each of the presidents — Washington, none; Theodore Roosevelt, 37.) *Handbook* takes a somewhat different approach. Here, the subject is broken down into three categories: the office, the men, and the conventions.

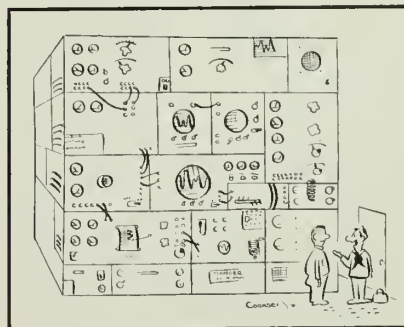
We've saved for the bottom of the page one book which we know will leave you refreshed and invigorated—*White House Fever*, by Robert Bendiner. With an easy-going, tongue-in-cheek approach, he covers much the same area as his fellow toilers in the political garden, but he comes up with different fruits. He notes, for example, that a party platform is a document which usually condemns all manner of sinfulness on the part of the opposition, wholeheartedly favors virtue in all its many forms and more especially that variety practiced by the party writing the platform. With a light, sure touch, heavily larded with common sense, he tells who can be elected and why. He discusses the virus of ambition that afflicts all candidates (governors contract the disease automatically) and for which the White House is the only sure cure.

All-Navy Cartoon Contest
D. F. Joachim, JO3, USN



"No thank you, sir—but I could use some suntan oil!"

All-Navy Cartoon Contest
F. E. Cooksey, RMC(SS), USN



"I'm being transferred now, so briefly, here's how it works."

DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ CLEXTON, Edward W., VADM, USN, for exceptionally meritorious service to the Government of the United States in a duty of great responsibility as Chief of Naval Material from 1 Feb 1956 to 30 Jun 1960. Exercising sound professional judgment and dynamic leadership in administering the material program of the United States Navy, VADM Clexton has rendered distinguished service to the United States, adding significantly to our national defense posture. He has fostered the highest degree of cooperation with private industry, and has greatly improved the material effectiveness of the Navy in the areas of policy coordination of procurement, production, inspection, and supply management. He skillfully directed the planning and implementation of a consolidation of the Bureaus of Aeronautics and Ordnance into the Bureau of Naval Weapons within a remarkably short period of eight months.

★ WILSON, Ralph E., VADM, USN, for exceptionally meritorious service to the Government of the United States in a duty of great responsibility as Deputy Chief of Naval Operations (Logistics) from December 1957 to June 1960. VADM Wilson was responsible for many changes which have contributed significantly to the ability of the Fleet and shore establishment to accomplish their respective missions more effectively. Notable examples of VADM Wilson's foresight and vigorous efforts are: A complete re-evaluation of the Reserve Fleet Policy and program which resulted in the identification and disposal of a large number of obsolete and excess ships; the Fleet Rehabilitation and Modernization program which has greatly improved the efficiency and adequacy of management of all categories of real property.

Gold Star in lieu of Second Award

★ INGERSOLL, Stuart H., VADM, USN, for exceptionally meritorious service to the Government of the United States in a duty of great responsibility while serving as President, United States Naval War College, from August 1957 to July 1960. Under his astute direction, the Naval War College has maintained a special and proper emphasis upon naval

power within the concepts of national strategy and has recognized and incorporated into the various curricula the implications of the rapid technological advances and Cold War requirements.



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service in the Government of the United States . . ."

★ WALLACE, William E., CAPT, USN, for exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States from 25 Aug 1956 to 5 Aug 1959. As Chief of the Analysis Division, Defense Atomic Support Agency, Captain Wallace provided technical guidance in the formulation of the objectives and experimental methods for full-scale nuclear tests and laboratory investigations. Through his proficient coupling of operational concepts with nuclear-effects analysis, he enabled the Defense Atomic Support Agency to develop sound programs. As senior member of the technical staff of the Special Project organized to conduct the ARGUS experiment, Captain Wallace displayed a high degree of leadership, organizational ability and scientific skill in drafting, coordinating and adapting the program to field conditions.

★ DAVIS, John A. Jr., LCDR, USN, for meritorious achievement as Commanding Officer of *uss Greenfish* (SS 351) during the winter of 1960. Under LCDR Davis' outstanding leadership, *Greenfish* completed an operation of great value to the Government of the United States.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ LAU, Gerard J., SF2, USNR, for heroic conduct during a fire in Ocean County Jail, Toms River, N.J., on 23 Aug 1959. Observing smoke pouring from the jail, and hearing the prisoners screaming for help, Lau, who was visiting nearby, immediately raced to the building and ran to the second floor where the screams of

prisoners could be heard. As he was carrying out his courageous attempt at rescue, an explosion occurred, catapulting him down a stairway and burning him severely. His heroic effort was in the highest tradition of the naval service.

★ MORRISSETTE, Joseph P., FN, USN, for heroic conduct on the early morning of 7 Jan 1960 while serving on board *uss Krishna* (ARL 38) at the United States Naval Amphibious Base, Little Creek, Norfolk. When a fellow serviceman fell from a vessel moored close to *Krishna*, Morrisette unhesitatingly dived into the frigid waters and swam to the side of the drowning man. Securing a firm hold on the victim, he managed to tow him to within 50 feet of safety where he was assisted by another man in the rescue.

★ SALTS, Jack L., HM3, USN, for heroic conduct on the morning of 15 Oct 1959 as a member of a rescue party at the Marine Corps Cold Weather Training Center, Bridgeport, Calif. When a Marine was seriously injured in a fall down an icy mountain slope during combat exercises, Salts immediately descended over difficult terrain to render medical treatment and assist in evacuation of the victim. While engaged in rendering medical assistance, he observed a large boulder rolling down the side of the mountain and heading directly toward the injured Marine. Without hesitation, Salts placed his body between his patient and the boulder, receiving the full force of the plunging rock in his chest and abdomen, thereby preventing further injury or possible death to the patient. Although sustaining painful injuries, for which he was hospitalized, Salts accompanied the rescue party throughout its five hours of difficult rescue work and continued to render medical treatment until his patient was delivered to the dispensary.

★ SCRIMIGER, John L., EMC, USN, for heroic conduct on 1 May 1959 as Chief Petty Officer in charge of *uss Capitaine* (SS 336) Rescue and Assistance Party while fighting a fire in the engine room of the Norwegian ship, *Fergulf*, in Vancouver Harbor, British Columbia. Under Scrimiger's inspiring and courageous leadership, *Capitaine's* fire-fighting unit boarded the stricken ship and repeatedly entered the hot, smoke-filled compartments in an effort to control and extinguish the fire, despite the threatened collapse of decks, ladders and passageways, and the ever present danger of further fire and explosion.



EVOLUTION of NAVY BUREAUS

The Navy is unique in many ways. To the average Navymen this is evident in our streamlined ships and potent weapons systems—our atomic subs, Polaris missiles, supersonic jets taking off from mobile platforms at sea.

But another part of this uniqueness is the Navy's "bureau system." The newest recruit soon becomes well acquainted with such alphabetical conglomerations as BuPers, BuMed and BuShips. They administer unto his needs. They are responsible for his orders, his pay, and in some way, for the ships that he sails in.

However, if he thinks about the bureaus at all, he envisages a group of offices somewhere back at naval

headquarters, and that's as far as he goes. What are the Bureaus? Where did they come from? How long have we had them?

Here is the story of the "Bu's" and how they grew. It was written by L. Robert Davids, formerly an editor with the Navy Civil Engineer Corps and currently a reports officer for the Atomic Energy Commission. His is an interesting and informative account of what made the Navy tick, administratively speaking.

THE FIRST MAJOR REORGANIZATION of the Navy bureaus in almost two decades was the consolidation



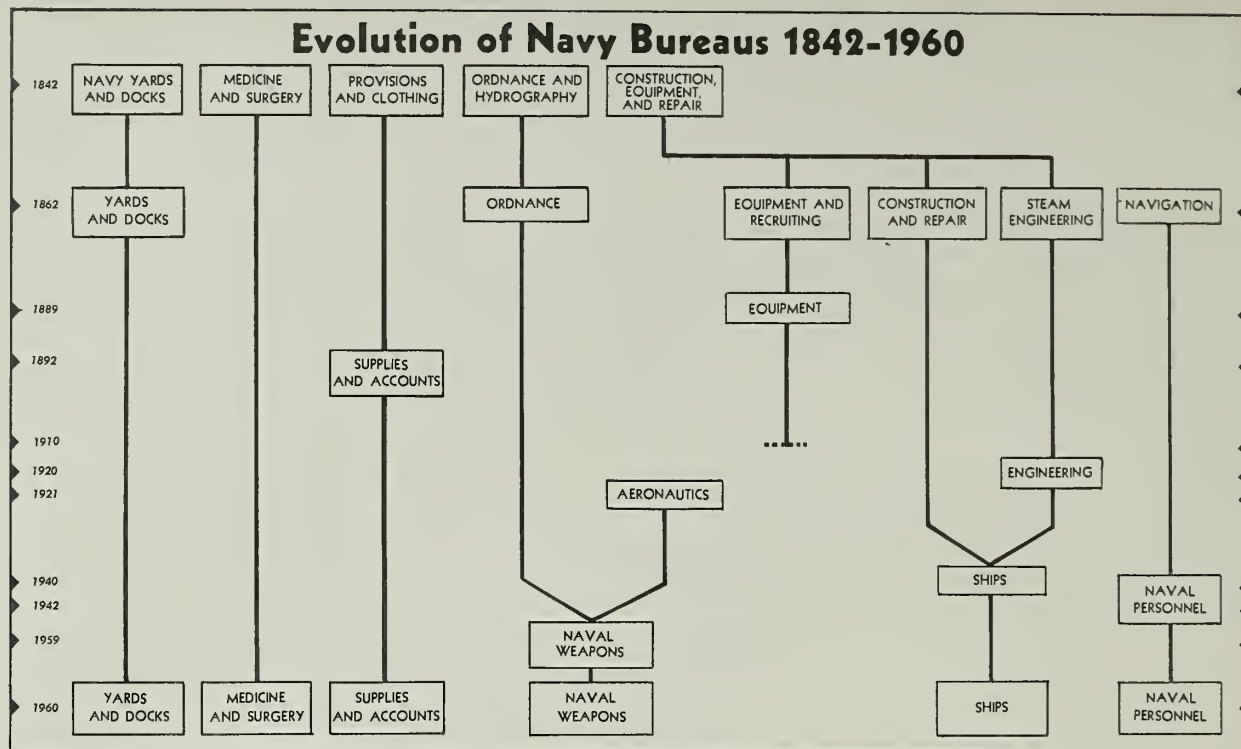
James K. Paulding, Secretary of the Navy
Guiding spirit to new bureau system



CAPT Lewis Warrington, USN
First Chief of BuDocks



William P. C. Barton, Surgeon, USN
First Chief of BuMed



last year of the Bureau of Ordnance and Bureau of Aeronautics into the new Bureau of Naval Weapons. Legislation authorizing the merger was signed by the President on 18 Aug 1959, and establishment of the new Bureau became effective on 1 September.

The consolidation reduced the number of Navy bureaus to six, the lowest number in almost a century. The other Bureaus are: Medicine and Surgery, Naval Personnel, Ships, Supplies and Accounts, and Yards and Docks.

The Bureau of Ships resulted from a similar consolidation of the old Bureau of Construction and Repair and Bureau of Engineering in 1940. However, the establishment of BuShips was foreseen for years before the change was effected; this wasn't so with BuWeps.

The consolidation of BuOrd and BuAer resulted from the recommendations made by a Navy Committee on Organization, convened in 1958 under the chairmanship of William Franke, the present Secretary of the Navy. The Committee found that changes in technology

and weapons' characteristics, particularly in the field of missiles, tended to merge the areas of development charged to the two bureaus to such a degree that organizational changes appeared necessary.

The objective of the merger was to provide an effective organization for the development and procurement of naval weapons to integrate the many phases of modern weapons systems. It reduces the problems of divided responsibility and the necessity of coordination at multiple stages and levels. The aim is a unified approach to the development of weapons systems rather than two parallel approaches which have been common under the two related bureau systems.

Congressional legislation was required for the Navy to establish the new Bureau and to provide for the abolition of the two bureaus. The merger brings together departmental personnel of approximately 4400 officers and civilians under one rear admiral as chief. RADM Paul D. Stroop, Chief of BuOrd since 1958, has been sworn in as the first head of this largest of bureaus.



RADM Charles H. Davis, USN
First head of Bureau of Navigation



COMO Horatio Bridge, USN
Chief of Provisions and Clothing



RADM John Lenthall, USN
Chief of Bureau of Construction,
Equipment and Repairs

BUAER HAD A RELATIVELY short life. Its history goes back only 38 years to 1921, but that of BuOrd dates back to the beginning of the Bureau System in 1842.

In the various bureau reorganizations since 1842, BuOrd's only change in title and function came in 1862, when its responsibility for hydrography was shifted to another bureau. Its basic concern with naval ordnance remained through its 117-year history. (Only BuDocks and BuMed of the present bureaus retain their link with the original Navy bureau system.)

Let's trace briefly the history of the Navy bureaus to see how their titles and jobs have changed over the years. The bureau chiefs played an important role in shaping the organizations they headed. In fact, if it had not been for the vigorous defense of the bureaus by some of their chiefs, the system might have perished.

THE NAVY "BUREAU SYSTEM" was established by the Act of 31 Aug 1842, after the Navy Board of Commissioners, consisting of three senior captains, had given military direction to the Navy Department for the preceding 27 years.

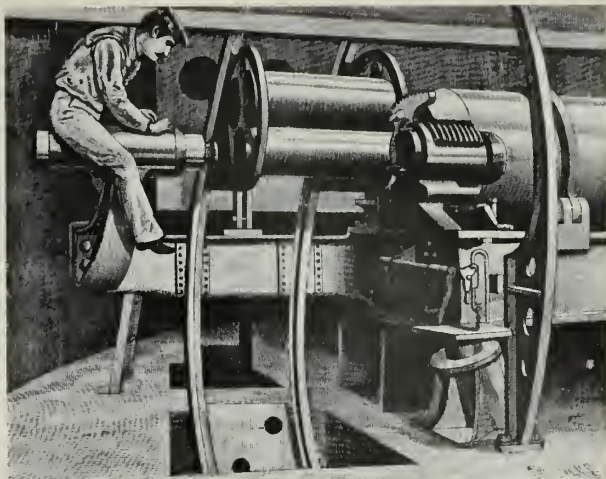
The guiding spirit behind the change in administrative system was Secretary of the Navy James K. Paulding, who had previously been Secretary of the Navy Board. He had submitted a lengthy and elaborate plan of Navy reorganization to Congress at the end of 1839.

The main reason that the three Navy Commissioners were having their general functions transferred to separate bureaus was because the Commissioners did not have individual duties and responsibilities. They acted as a board. The Secretary of the Navy wanted the officers in the Department to relieve him of the "numerous and multifarious" duties which he did not have the specialized knowledge or the time to perform.

Abel Upshur, who became Navy Secretary in 1841, urged quick Congressional approval of the plan. He recommended that the work of the Naval Shore Establishment be directed by seven bureau chiefs. However, the final Act provided for only five bureaus. They were:

- Navy Yards and Docks
- Construction, Equipment, and Repair
- Ordnance and Hydrography
- Provisions and Clothing
- Medicine and Surgery.

THE FIRST THREE BUREAUS were each allowed a staff of seven, including the chief. Provisions and Clothing had an even smaller staff—it was to operate with five



PRODUCT OF THE TIMES — 'Terror' loading car designed for the Monitor was an early product of BuOrd.

persons, and BuMed with only four. The Act also stated that the

"President of the United States, by and with the advice of the Senate, shall appoint from the captains of the naval service a chief for each of the Bureaus of Navy Yards and Docks and Ordnance and Hydrography, who shall each receive a salary of \$3,500; a chief for the Bureau of Construction, Equipment and Repair, who shall be a skillful naval constructor, and a chief of the Bureau of Provisions and Clothing, who shall each receive a salary of \$3,000; and shall appoint from the surgeons of the Navy a chief of the Bureau of Medicine and Surgery who shall receive a salary of \$2,500."

Secretary Upshur, commenting on some of the imperfections of the bill, cited the "equipment function," which should have been in a separate bureau, being lumped with Construction and Repair. "It requires a ship-carpenter to build or repair a vessel of war; it requires a naval officer to equip her." He said it was impossible to find one man as chief who was properly qualified to perform all the duties of building, repairing, and equipping a vessel of war. He also complained that "the providing of ordnance and ordnance stores has no connexion with hydrographical surveys; and yet these two subjects are entrusted to the same bureau." Upshur felt that both Equipment and Hydrography



RADM Joseph Smith, USN
Chiefs of BuDocks for 23 years



RADM Washington L. Capps, USN
Chief of Construction and Repair—1903



RADM George Melville, USN
Head of Bureau of Steam Engineering

should have been placed in separate bureaus, making the total seven instead of five. He also complained of the lesser salary authorized for the Chief of BuMed.

NAVY YARDS AND DOCKS was the No. 1 bureau, and CAPT Lewis Warrington, who had been the last President of the Board of Commissioners, was named its chief. In those days the Commandant of each Navy Yard reported to the Chief of BuDocks. The other two Commissioners in 1842 also assumed duty as bureau chiefs. Ordnance and Hydrography was headed by CAPT William Crane and CAPT David Connor, who shortly was to lead U.S. naval forces in the Mexican War, served as Chief of Construction, Equipment and Repair.

The Act of 1842 did not specify who was to head Provisions and Clothing, and, as it turned out, this Bureau was headed by a civilian. He was the elderly Charles W. Goldsborough, who had served in the Navy Department since its creation in 1798, first as Chief Clerk and later as Secretary of the Navy Board of Commissioners.

The Bureau of Medicine and Surgery, as required by the 1842 Act, was headed from the start by a Naval Surgeon, the first one being the controversial William P. C. Barton. He remained as Chief of BuMed for only two years, when he was succeeded by his chief rival in medical circles, Thomas Harris, who served for nine years.

AS THERE WAS NO military head of the Navy in the period of 1842-1862, the bureau chiefs were then the top officers in the Navy Department. They were responsible only to the Secretary of the Navy, who "shall assign and distribute among the said bureaus such of the duties of the Navy Department as he shall judge to be expedient and proper."

BuDocks Chief Warrington, the senior naval officer in the Department for several years, actually filled in as Secretary of the Navy for a month in 1844 when Secretary Thomas W. Gilmer was killed in the gun explosion aboard *USS Princeton*. This disaster had additional effects upon the Navy Department and the bureaus. The Secretary of State was also killed, as was the Chief of Construction, Equipment, and Repair. This being an Ordnance disaster, CAPT Crane, Chief of BuOrd, ultimately incurred some responsibility for the accident. Though he had disapproved of the gun and refused to witness the trials, his suicide in the Navy Department in 1846 was attributed to brooding over the accident.

In this emergency, CAPT Charles Morris was called in to become Chief of CE&R, and Warrington shifted from BuDocks to BuOrd. These two senior officers, who had more than 100 years of active service between them, greatly stabilized the bureau system in the critical early days of its existence.

Most of the bureau chiefs in this period were senior line captains, this rank being, until the Civil War, the top rank in the Navy. These officers were generally too old to be rotated back to sea duty after a tour in the Department. One extreme example of this was CAPT Joseph Smith, who served as Chief of BuDocks from 1846 until 1869. This was a continuous tenure of 23 years, considerably longer than any other Navy bureau chief. Technically he was placed on the retired list as a rear admiral during the Civil War, but he was not to relinquish his duties as Chief until he was 79 years old.

THE FIRST MAJOR REORGANIZATION of the Navy bureaus took place during the Civil War, just 20 years after their creation. The changes were made to cope with what Navy Secretary Gideon Welles called the great changes and activities that had taken place "since the commencement of our national difficulties."

The reorganization (Act of 5 Jul 1862) saw the Bureau of Construction, Equipment, and Repair divided into three different bureaus; namely, Construction and Repair; Equipment and Recruiting; and Steam Engineering. The same Act dropped the superfluous word "Navy" from Navy Yards and Docks; and Hydrography from Ordnance and Hydrography.

Also created was a new Bureau of Navigation which took over the increasingly important functions of the Hydrographic Office as well as the Naval Observatory.

The Bureau of Navigation, first headed by RADM Charles Davis, was mainly a scientific bureau. However, just three years after it was established, this Bureau became responsible for the detailing of all officers, and 20 years later all enlisted men of the Navy. Personnel matters had been handled by the Secretary's office.

THIS MAJOR REORGANIZATION in the midst of the Civil War enlarged the Navy Department from the original five to eight bureaus. They were (1) Yards and Docks; (2) Equipment and Recruiting; (3) Navigation; (4) Ordnance; (5) Construction and Repair; (6) Steam Engineering; (7) Provisions and Clothing; and (8) Medicine and Surgery.



RADM George Converse, USN
Successively headed three bureaus



Josephus Daniels, Secretary of Navy
Reviewed Bureau system after WW I



RADM William Moffett, USN
First Chief of BuAer

The first four of these bureaus were headed by line officers and the last four by what became known as staff corps officers.

The inspiringly named Horatio Bridge, Chief of Provisions and Clothing, 1854-69, was a member of the Pay Corps and in 1868 was officially designated as Paymaster General of the Navy. John Lenthall, Chief of Construction and Repair, 1853-71, was Chief Naval Constructor and the top officer in the Construction Corps, which was officially established in 1866. William Whelan, Chief of BuMed, 1853-65, was the equivalent of a Medical Corps officer. He had the title of Surgeon, which was changed in 1869 to Surgeon General of the Navy. Benjamin Isherwood, Engineer in Chief of the Navy since 1861, became the first Chief of Steam Engineering in 1862. He was a member of the Engineer Corps, which was concerned with ships.

(The Engineer Corps should not be confused with the Civil Engineer Corps, which was established in 1867, and the members of which staffed the Bureau of Yards and Docks. However, no CEC officer became Chief of BuDocks until 1898 when Civil Engineer Mordecai Endicott was given the post. Any confusion over these two staff corps was ended in 1899 when the Engineer Corps was disestablished. Future Chiefs of the Bureau of Steam Engineering were selected from the line, which had absorbed the officers of the Engineer Corps.)

IN 1882, Navy Secretary William Chandler suggested that in view of the close association between the Navy and the Mercantile (Merchant) Marine and the fact that there was no one agency that administered the affairs of the latter organization, a Bureau of Mercantile Marine be established in the Navy Department. He repeated this suggestion in his Annual Report for 1883, but to no avail.

The passing of wooden ships and the advent of steam were making themselves felt throughout the Navy. In 1883, Chandler also recommended that the Bureau of Construction and Repair and the Bureau of Steam Engineering be united in a single Bureau of Naval Construction. He said that in the construction of steel ships, "It will be found impossible for two independent and equal bureau chiefs to design and supervise the construction of a modern vessel, the one that of the hull, and the other that of the machinery, and bring all parts together in one perfect ship without differences of opinion." He felt consolidation was the solution. Congress did not take action, however, at this time.

Chandler's successor, William Whitney, had hardly taken office in 1885 when he was recommending something entirely different—the abolition of the current bureau system. In its place, he proposed a three-division set up: (1) personnel; (2) material and construction; and (3) finance and account. The three-division organizational structure was well favored in Congress, but opponents of the bill prevented it from reaching a vote.

ALTHOUGH SECRETARY OF THE NAVY Whitney was not directly successful in his efforts at major reorganization, he nevertheless was able to focus attention on certain areas of duplication in the Department. He also utilized his own prerogatives to redistribute some of the bureau functions. He took elements of electric lighting from BuNav and BuOrd—he called this a correction of a "manifest absurdity"—and consolidated them in the



HEADQUARTERS—Old photo taken from Washington Monument shows how the 'new' Navy building looked.

Bureau of Equipment and Recruiting. He also took steps to place all personnel matters under the Bureau of Navigation and to remove the technical functions therefrom. In this regard, he had personnel recruiting responsibility transferred there from the Bureau of Equipment and Recruiting. Consequently, the name of this latter Bureau was officially changed in July 1889 to simply the Bureau of Equipment. It was then headed, incidentally, by CAPT George Dewey.

Whitney also stated in 1889 that the Hydrographic Office had no connection with the Bureau of Navigation and should be removed. This transfer was finally made to the Bureau of Equipment on 4 May 1898, but the change in function was not reflected in the latter Bureau's title.

The major accomplishment of the reorganization-minded Secretary Whitney resulted from his concentrated effort to get Navy purchasing and accounting centralized in the Bureau of Provisions and Clothing. This was a gradual process which was not completed in his four-year term as Secretary, but before he left office in 1889, Whitney made the recommendation that the name of this Bureau be changed because of its enlarged responsibility. Considering that it had gained practically all the bookkeeping work and a great part of the supply work of the Navy, Whitney said: "It might be properly called the Bureau of Supplies and Disbursements."

The actual title approved by Act of Congress in July 1892 was Bureau of Supplies and Accounts.

Despite this change in title, the members of the Pay Corps staffing this Bureau did not become known as Supply Corps officers until 1919, shortly after the end of World War I.

DIVIDED RESPONSIBILITY in regard to shipbuilding continued to pose a problem despite the fact that General Order 433 of 2 Oct 1894 placed the responsibility for the "design, structural strength and stability of vessels" in the hands of the Bureau of Construction and Repair. Secretary John D. Long, in his report for 1899, pointed out a certain lack of harmony and conflicts in construction schedules.

"Where does the work of one Bureau end and another Bureau begin?" He recommended that since the three bureaus of Construction and Repair, Steam Engineering, and Equipment were all basically concerned with one integral work, they should be consolidated into one Bureau of Ships.

Long renewed the consolidation plea the next year. No corrective legislation was forthcoming yet, however.

With the turn of the century there was something of a

revolution in the American Navy, a change that was influenced mainly by the American victory in the war with Spain and the advent of Theodore Roosevelt to the Presidency. This was not merely an expansion of the Fleet but involved a termination of old personnel practices which affected the bureau chiefs.

From the Civil War to the Spanish-American War, bureau chiefs had served in the various ranks of captain, commodore (which became a fixed rank in 1862), and rear admiral, which rank was also established in 1862. However, by the Act of 3 Mar 1899, which also eliminated the Engineer Corps, the rank of commodore was also abolished on the active list. All bureau chiefs serving in that rank were upped to rear admiral, which became the established rank for all officers while heading a bureau.

WHEN FORMER Assistant Secretary of the Navy Theodore Roosevelt became President in 1901, he instituted a youth movement that resulted in some of the youngest rear admirals the U.S. Navy ever had.

Himself the youngest man to occupy the White House, President Roosevelt named Washington Lee Capps, 39, Chief of Construction and Repair in 1903. In 1907 he selected 36-year-old Harry Rousseau as Chief of BuDocks; and shortly before leaving office in 1909 he named the 38-year-old H. I. Cone as Chief of Steam Engineering.

BuDocks Chief Rousseau, who was just a lieutenant when selected, became the youngest rear admiral in U.S. naval history.

Few Presidents took the personal interest in the Navy that Teddy Roosevelt did. By sometimes going far down the list of line and staff corps officers to select a particularly qualified officer as bureau chief, he breached the traditional reliance on seniority and established a personal selection policy which was copied to a certain extent in later administrations.

T. R.'s personal interest in the Navy could possibly be reflected in the fact that he had six different Navy Secretaries in his seven-and-one-half-year tenure in the White House. Practically all the men filling that Cabinet post made some recommendation for bureau reorganization. Some of these recommendations were well founded but others were not well thought out and contradicted reorganization plans proposed in preceding years. As each Secretary served only a short time, it was difficult to work out a solution to the administrative problems then existing in the Department.

IN THE LAST DAYS of Teddy's second term (12 Jan 1909), the current Secretary of the Navy (Truman Newberry) wrote to the President a proposal which called for the consolidation of the Bureaus of Construction and Repair and Steam Engineering and abolition of the Bureaus of Equipment and Yards and Docks and the assignment of their duties to some of the other bureaus.

Regarding the work of BuDocks, Newberry proposed that Naval Constructors should oversee civil engineering. RADM Richard Hollyday, Chief of BuDocks, strongly protested the proposal. A decision on this rather broad proposal was not made while Roosevelt was in office.

The Navy Secretary in the Taft Administration (George von L. Meyer) appointed three boards during

1909 to consider reorganization of the Department. He finally followed the recommendation that BuDocks be continued and that it be placed in charge of all public works and public utilities of the Naval Shore Establishment. This meant taking responsibility from BuNav regarding the building of training stations; from BuMed regarding hospitals; and BuOrd regarding magazines. Yards and Docks, therefore, came out of this precarious situation in a greatly enhanced position.

On the other hand, the proposal to abolish the Bureau of Equipment was carried out in June 1910 when Congress authorized its suspension. The duties of this Bureau were distributed among the other bureaus: For example, the responsibility for coal and its transportation was assigned to BuSandA; electric generators and such accessories to Steam Engineering; galleys, rope and canvas-making to C&R; and the Hydrographic Office was once again placed under the jurisdiction of BuNav. Responsibility for the Hydrographic Office was later assumed by the Chief of Naval Operations. (This office was first established in 1915.)

The abolition of the Bureau of Equipment reduced the number of bureaus to seven after they had been at maximum strength of eight for almost half a century. It was not expected that the number would be reduced further, for the distribution of equipment functions had increased the responsibilities of Steam Engineering and Construction and Repair and the agitation for consolidation of these two Bureaus temporarily subsided. In fact, over-all criticism of the bureau system was considerably reduced.

AFTER WORLD WAR I, Secretary Josephus Daniels reviewed the work of the bureaus during the conflict and said that they had responded well to the emergency situation.

He defended the bureaus against criticism that the system would not stand up under the mobilization requirements of the war period.

He pointed out that the bureaus had survived 78 years of changing conditions—the best indication that the system was sound. Many felt that a major contributing factor in the "survival" of the bureau system in this period was the continuous direction of the Department by Daniels and Assistant Secretary Franklin Roosevelt for the last eight of those 78 years. No previous Secretary (except Welles) or Assistant Secretary had served so long.

The only change in the bureaus that had taken place in Daniels' eight years in office was contained in the Naval Appropriations Act of 4 Jun 1920. As a result of the advent of diesel propulsion of ships, the word "Steam" was dropped from the Steam Engineering Bureau and it became simply the Bureau of Engineering.

Aviation had become a major combat factor in WW I. One change which Daniels advocated was the establishment of a new bureau to administer the growing aviation program. This change did not take place, however, while he was in office.

CONGRESS HAD PLACED the aviation appropriation act under the Bureau of Navigation in 1911. Later the Chief of Naval Operations became directly responsible for the program. The Bureau of Construction and Repair had responsibility for design and construction of the airships, and most of the other bureaus also had some aircraft functions.

These functions were transferred to the newly author-

ized Bureau of Aeronautics, which was established by Act of Congress on 26 Jul 1921.

For the most part this Bureau was staffed by line officers who were specialists in aeronautical engineering. RADM William A. Moffett, USN, a pioneer in naval aviation, became the first chief. He continued to serve for almost 12 years—until his death in a dirigible accident in April 1933. He was succeeded by RADM Ernest J. King, USN, then a relative newcomer in naval aviation.

NO SIGNIFICANT CHANGE in the bureau system took place until the threat of World War II became more and more ominous. It was in the late 1930s that the old proposal of consolidating the two shipbuilding Bureaus—Construction and Repair and Engineering—was brought out of mothballs. Assistant Secretary Charles Edison was the driving force behind this latest attempt at merger. Secretary Claude Swanson appointed him Coordinator of Shipbuilding in early 1939 to expedite the necessary administrative procedures in the construction of ships. With the death of Swanson, Edison became Acting Secretary. He necessarily found the volume of work as SecNav and collateral duties too heavy to handle and in September 1939, just after the start of war in Europe, he named RADM Samuel Robinson, who was serving his second four-year term as Chief of Engineering, the new Coordinator of Shipbuilding.

There were obvious benefits from this system and the Navy Department took the next step of requesting Congressional authorization to merge Construction and Repair and Engineering into a new Bureau of Ships.

On 20 Jun 1940, Congress authorized the merger and the Bureau of Ships was officially established. Thus, Construction and Repair and Engineering were returned to the one-bureau status they held prior to 1862. RADM Robinson became the first Chief of BuShips.

This same Reorganization Act also wrote an end to the Construction Corps. At the urging of RADM Nimitz, Chief of BuNav, who maintained that greater efficiency of personnel would result, and the acquiescence of the last Chief Constructor, RADM Alexander Van Keuren, the officers of this Corps were amalgamated into the line.

ANOTHER LONG OVERDUE CHANGE took place in May 1942 when the name of the Bureau of Navigation was changed to the Bureau of Naval Personnel. As pointed out earlier, this Bureau had very little to do with Navigation since shortly after its creation in 1862 and this fact was acknowledged by all concerned. As far back as 1913 when one of the Bureaus administrators was assigned to address the postgraduate department of the Naval Academy on the duties and functions of the Bureau of Navigation, he made it clear from the outset that the Bureau of Navigation for many years "has had almost nothing to do with Navigation. Its characteristic function is not navigation, but the supply and control of personnel."

While bureau chiefs had been serving as rear admirals since 1899, the great growth in size and importance of the Navy during World War II resulted in some upgradings. In February 1944, President Roosevelt nominated three senior Bureau Chiefs for promotion to the rank of vice admiral. They were: Ben Moreell, Chief of BuDocks and organizer of the Seabees; Ross McIntyre, Chief of BuMed and for almost a decade the



SOME TIME AGO—Members of the Bureau of Supplies and Accounts pose for the camera during World War I.

White House Physician; and Randall Jacobs, Chief of the greatly enlarged Bureau of Naval Personnel.

After World War II most of the bureau vice admiral positions were again downgraded. The Chief of BuPers, who has a dual role as Deputy Chief of Naval Operations for Personnel, retained his three-star rank. He now is the only bureau chief to hold this rank.

IN 1957, 15 years after the Bureau of Navigation had achieved its long overdue name change to Bureau of Naval Personnel, the Chief of BuDocks proposed to Congress that the Bureau of Yards and Docks have its named changed to the Bureau of Civil Engineering. It was felt that Civil Engineering was a more encompassing title than Yards and Docks, which referred to only one project category of the Bureau's broadened mission. This proposed change would also give greater recognition to the Civil Engineer Corps, whose officers staffed the Bureau. The proposal seemed to be well received and, in fact, the House of Representatives passed the measure in April 1958 without opposition. However, when opposition was voiced in the Senate on the grounds that the change in name would violate the long and honorable history of the Bureau of Yard and Docks, plans to change the name of the Bureau were dropped.

This brief summary of the bureau system may seem to indicate that there have been numerous changes in the Navy Department organization in its 118 years of existence. Actually, that is not the case, although from time to time there has been agitation for change that was not in fact carried out, or carried out after a long period of time. Some changes occurred only after years in which they were championed by one source or another. For example, the first recommendation for consolidation of Construction and Repair and Steam Engineering was made in 1882; the merger was carried out in 1940. On the other hand, the authorization for the abolition of BuAer and BuOrd and the establishment of the new Bureau was achieved in an extremely short period of time.

The bureau system has continued while undergoing changes, such as the redistribution of functions, consolidation, abolition, and establishment of new bureaus. It is now one of the oldest institutions in the Navy. Secretary Josephus Daniels praised the bureaus system for its soundness in 1920 on the basis of its 78 years of existence. This statement could be reiterated without hesitation in 1960 after 118 years. —L. Robert Davids

TAFFRAIL TALK

IF THERE IS ANY MONOPOLY on good Navy cooks, it would appear at the moment that the U.S. Naval Station at Guantanamo Bay, Cuba, has it. For the second time in three years, Gitmo has been selected as the most outstanding Navy general mess ashore. NavSta Gitmo won in 1958, was nominated but failed to win in 1959, won again this year.

According to the records, it would also appear that Navymen aboard *uss Saint Paul* (CA 73) are living it up a little better than anyone else, for it was this ship which took honors with its general mess afloat. Winner for the first time, she nosed out runner-up *uss Galveston* (CLG 3). Runner-up in the ashore category was the general mess at the Navy Postgraduate School, Monterey, Calif.

Special certification was won by 33 other ship and shore general messes in their food preparation, serving, sanitation and management. More than 1100 ashore and afloat food service activities throughout the world competed in this third annual all-Navy food competition. This year, 10 (instead of the earlier six) finalists were selected to compete for top honors.

The winning and runner-up ship and shore messes will receive permanent trophy plaques by the sponsors of the Ney Memorial Awards program, the Executive Stewards and Caterers Association.

The 33 activities selected as outstanding in their respective commands are:

uss Bluebird (MSC 121), *Bon Homme Richard* (CVA 31), *Courtney* (DE 1021), *Embattle* (MSO 434), *General W. A. Mann* (TAP 112), *Greenfish* (SS 351), *Independence* (CVA 62), *Kawishiwi* (AO 146), *Locator* (AGR 6), *Raul Revere* (APA 248), *General G. M. Randall* (TAP 115), *Sablefish* (SS 303), *Salvager* (ARSD 3) and *Taconic* (AGC 17).

Shore facilities selected were: *Columbia River Group*, *Pacific Reserve Fleet*; *the ComServLant Flag Unit*; *the Florida Group*, *Atlantic Reserve Fleet*; *NAS Corpus Christi, Tex.*; *NAS Johnsville, Pa.*; *NAS Miramar, Calif.*; *the U.S. Naval Communication Facility, Japan*; *the U.S. Naval Communication Station, Washington, D.C.*; *the U.S. Naval Mobile Construction Battalion No. 3*; *the U.S. Naval Receiving Station, Brooklyn*; *the U.S. Naval Retraining Command, Portsmouth, N.H.*; *the U.S. Naval Stations at Annapolis*; *Argentina*; *Kodiak*; *Rodman (Canal Zone)*; *Rota (Spain)*; and *Subic Bay (P.I.)*; *the U.S. Naval Training Center, Great Lakes, Ill.* and *the U.S. Naval Submarine Base, Pearl Harbor*.



We think we have found a worthy successor to Black Dog, the former unofficial CO of Lakehurst, N.J. Inu, who is attached to U.S. Naval Station, Long Beach, is a quiet, well-behaved dog who doesn't bark often but when he does, he means it.

While making his rounds along the waterfront not too long ago, John L. Snyder, BM3, slipped and fell off the pier. He hit his head on the pilings and was knocked unconscious. His plight might have gone unnoticed until it was too late if Inu hadn't seen the incident and brought rescuers on the run with his loud barking.

The All Hands Staff

The United States Navy

Gurdon of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS

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• AT RIGHT: CURIOUS CUBS—H. D. Miller, GM3, USN, satisfies curiosity of Cub Scouts from Orange, Calif., as he shows them around a gun mount during open house held by USS Rochester (CA 124) at Long Beach, Calif.





citation for heroism



ALL HANDS

U.S. NAVY PERSONNEL INFORMATION BULLETIN

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OCTOBER 1960



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

OCTOBER 1960 Nav-Pers-O NUMBER 525

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• **FRONT COVER: SAIL AHoy!**—Cruisemen of Sixth Fleet man the rails as their ship begins 21-gun salute during international naval review at Sagres Point, Portugal. Review in which Sixth Fleet ships participated was part of ceremonies for Prince Henry the Navigator of the 15th century.

AT LEFT: FLAGSHIPS MEET—USS Des Moines (CA 134), flag ship of Sixth Fleet, and USS Northampton (CLC 1) flag ship of Second Fleet, met in Palma Harbor in the Med. The rendezvous came after air-sea exercises between the Sixth and Second Fleets, earlier this year.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.





Ships, Squadrons & Insignia

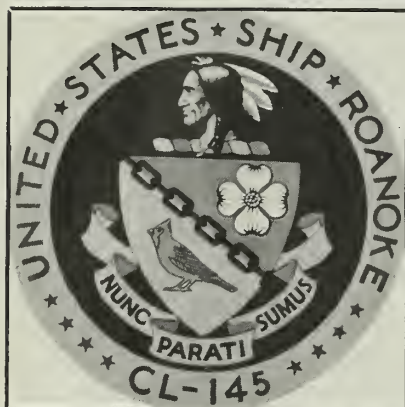
THEY'RE

We can't vouch for the authenticity of this tale—in fact we suspect it may be an exaggeration—but it helps to underscore a point we're anxious to make. Men can often accomplish great things through teamwork, and that intangible something the French called *esprit de corps*. That's as good a term as any, too, for among other things it means "a jealous regard for the honor of the body as a whole."

Consider the case of the "Little Beavers"—DesRon 23. They wrote a brilliant page in the history of WW II Pacific warfare behind the spirited leadership of Captain Arleigh Burke, who was to radio his superiors that he was "coming through at 31 knots." The Little Beavers came to believe that they could accomplish anything. They almost could, too.

Since man first ventured forth into battle—afoot, ahorse, afloat or in the air—he has commonly rallied around insignia or symbols of some type.

Ancient Greek and Norse sea-



FOUR NAVY OFFICERS were taking a break from the rigors of war in a friendly game of bridge. The place—somewhere in the South Pacific in mid-World War II. One of the officers commanded an aircraft carrier, the second a group of submarines, the third a battleship, and the fourth was a destroyer squadron commander. Suddenly a loudspeaker blared out disquieting news—a huge enemy striking force was bearing down on the area from the north. Planes, ships, subs, transports—the whole bit.

All of the players sprang to their feet, prepared to rush to battle stations, but the DesRon skipper quieted them with a wave of the hand. "Don't bother breaking up the game, fellows," he told them. "I'll go. I'm dummy for this hand, anyway," was his next remark.





A GOOD GROUP

farers, for example, habitually decorated the bows of their ships with huge symbols. It may have been the head of some favorite deity, who was supposed to protect them, or a dragon or other type of monster designed to terrify a superstitious enemy by the ferocity of its expression.

Many other examples spring readily to mind. U. S. submarines steaming back into Pearl Harbor after a successful Western Pacific campaign in WW II often sported a broom lashed to the mast, symbolizing a clean sweep.

Some U. S. planes received reams of publicity in that war through widely circulated photos showing a curvaceous cutie painted on their fuselage. Much more popular among airmen, however, and outnumbering pictures of unadorned females among men who knew the enemy best, were painted reproductions of squadron insignia.

In the case of a whole country, the symbol is normally a flag. An early U. S. flag—one adopted in the original 13 colonies—is a famous example. It featured a coiled serpent atop the legend "Don't Tread on Me." It accurately summed up the feelings of an entire people exulting in a new and hard-won freedom, and served as a warning to potential aggressors to keep their distance.

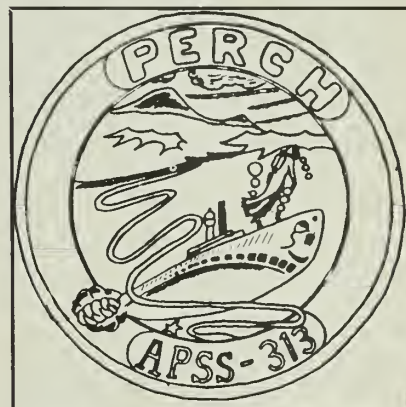
A little later, after we had switched to the stars and stripes, Francis Scott Key, fired by the sight of the flag still flying over Fort McHenry after a night of incessant bombardment, penned an immortal tribute. Ninety-nine and

nine-tenths per cent of the American populace, though they might hide any outward evidence of sentimentality, still feel an inner surge of pride and patriotism when they see, or hear, the Star Spangled Banner.

Ground troops, members of battalions and regiments with histories dating back as far, in some cases, as the Revolutionary War, don't go into battle, stand parade, or do much of anything else without their colors and battle streamers fluttering before them, serving as a constant inspiration to measure up.

What has this to do with us? Most of the examples cited here spring from wartime situations. This is the peacetime Navy, someone might say, and men are less prone to react to, and be stimulated by, insignia, symbols, slogans and the like.

That's just not so. The history of any organization is built of many small events. How a ship or squad-



INSIGNIA are often worn on Navy clothes. Submariner wears USS Seawolf patch. Rt: Pilot of VA-22, Fighting Red Cocks, has emblem and mascot.





ALL SMILES—Cake with insigne of USS Chemung (AO30) helps crew celebrate.



ron performs in battle is only one of them. The over-all record is equally important.

Navy duty today may seem humdrum and routine, but it also offers a challenge—a challenge to so conduct ourselves that, if a future conflict should develop, we or some future crew of our particular ship, plane or station will be fit and ready to fight. The record of how we did our jobs, depicted, in part at least, through the medium of colorful ship or squadron insignia, may inspire that future crew to great heights.

It all boils down to a matter of pride. If you're proud of your unit and its part in the Navy (and there's no reason you shouldn't be), you'll want others to know, and share in

that pride. And one of the more effective ways to make that pride visible is the use of a distinctive crest or coat of arms.

If by now you're convinced of the worth of individual insignia, you'll want to know how to go about adopting one for your outfit. There's nothing particularly complicated about it.

First step should be to gather up official directives on the subject. These would include OpNav Inst. 5030.2B, issued by CNO to encourage ships and squadrons to devise their own crest, and to establish certain design criteria for them throughout the Navy. It also contains information on how to mount service ribbons or campaign medals on individual ships, and details concerning plaques that ships may mount. In addition, CINCPACFLT and CINCLANTFLT have published instructions to force and type commanders — CINCPACFLT Inst. 5030.1C, and CINCLANTFLT Inst. 5030.2, respectively.

If yours is a new ship or doesn't otherwise have an insigne, your next move is to make up one or several proposed designs, or, better still, organize a contest on your ship or station and invite one and all to participate. If a contest is held, selection of the best submission or combination of submissions should be made by a representative committee from the crew. Several commands have awarded cash or prizes and/or special liberty to the winning entry as an added incentive. In any case, when you have a design that seems to fill the bill, have it drawn up in smooth and approved

MEANS A LOT—These orphans will long remember the crew members and emblem of fleet oiler USS Aucilla (AO 56).



ALL HANDS



by your CO. He will submit it through channels to the Fleet commander in accordance with instructions.

The Fleet commander will notify your ship when the insignia has been approved. And along that line, remember when you're making up your designs that good taste and dignity should be of paramount importance.

It should be of heraldic design, simple, colorful and with good contrast as opposed to cluttered appearance, and should depict the work your unit is engaged in. Cartoons, in most cases, are not acceptable. It's true that the pugnacious, tool-laden bee adopted by the Seabees has become world-famous, and is a very fine emblem, but as we've said, in most cases cartoons won't be considered appropriate.

You can arrange for your ship's crest to be printed on stationery and on pennants. Decals could be made for automobiles and motorcycles owned by crew members. They could be sewn on athletic uniforms, or, if your ship is large enough to have its own band, they could be used to decorate music stands and instruments. Members of air crews could have patches made and sewn on flight jackets.

In addition to ship and squadron insignia, the rules and regulations cover mounting of service ribbons and commendation ribbons earned by naval units, and the display of plaques. Fleet commanders have prescribed appropriate locations on ships and aircraft where they may be mounted.

So far as plaques are concerned, there are two which ships are authorized to display.

One is called the *ship's data plaque* containing the name of the ship, source of the name, informa-

tion on the builder, including keel laying, launching and commissioning dates. You have probably seen it on board.

The other is a *historical data plaque*, which is relatively new. It must be cleared by CNO to insure accuracy. In general, this plaque should contain:

- Name of the ship, flanked on the left by the year the first ship bearing that name was acquired or commissioned, and on the right by the year the present ship was commissioned.

- A statement as to the number of ships to bear the name, for example: "uss *Tincan*," (first, fourth or sixth) ship to bear the name.

- The names and years of battles or single-ship engagements in which the ship or her predecessors participated.

- If appropriate, the terms "Presidential Unit Citation" or "Navy Unit Commendation" and the year or years earned.

- The term "Battle Efficiency Competitions Award" and the year earned.

Such a plaque can be manufactured by a repair facility or tender upon approval of a request by the commanding officer of the unit concerned. Requests should be submitted in accordance with current instructions for submission of work requests.

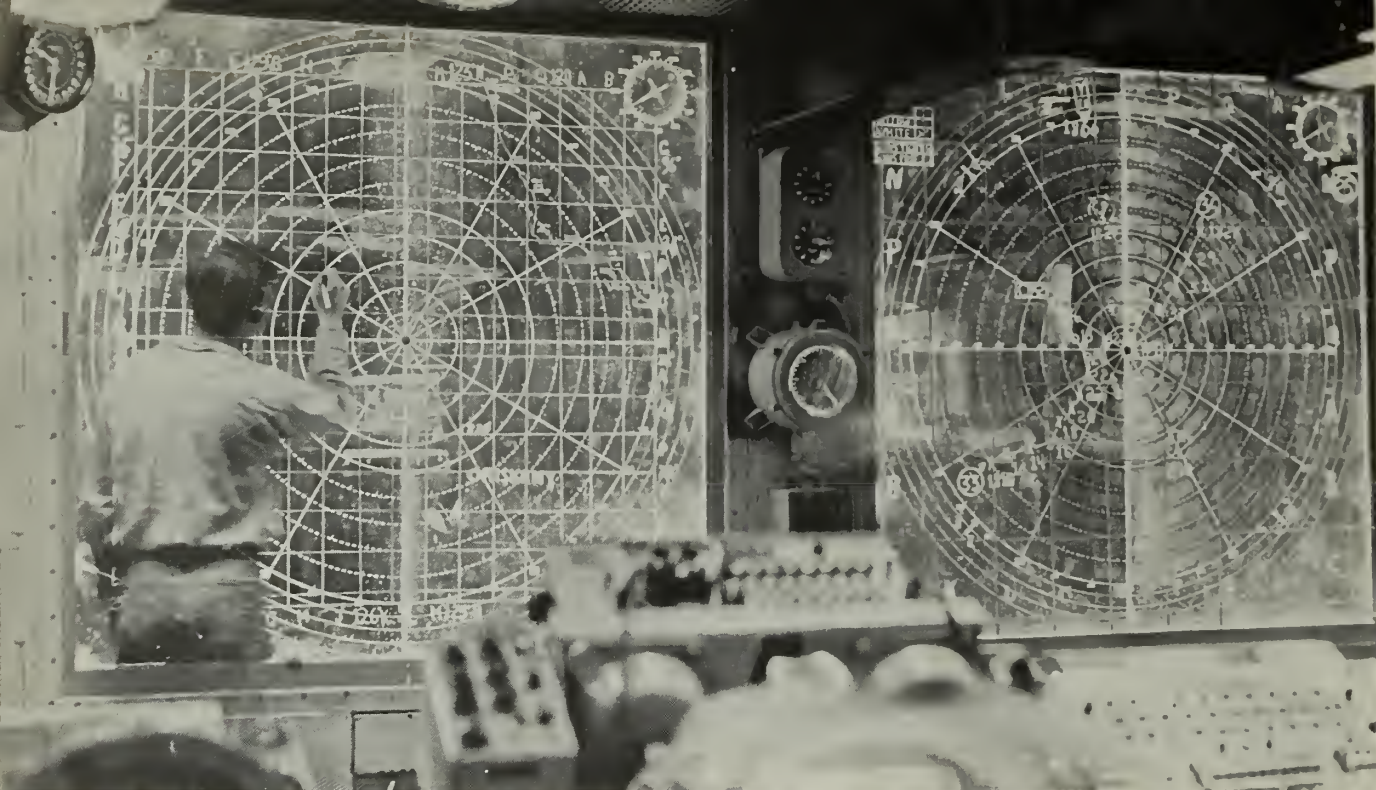
Some of the best Navy unit insignia today were drawn by professional artists as a favor to the crew of a ship or aircraft. Most, however, were devised by Navymen who had no special artistic ability but did have a keen interest in adoption of an appropriate symbol for their unit.

So you see, it's interest—or "esprit de corps"—that counts.

—Jerry McConnell, JO1, USN



TOTEM POLE of squadron insignia shows unit's safety record helping to create pride and better performance.



Sight-seeing in CLC

BEFORE THE DAYS of jet planes, missiles, radio, radar and sonar, naval warfare was a relatively simple affair. In the early years of our Navy, the skipper of a ship could usually base his decisions on little more than his knowledge of his own situation, his seamanship and whatever he could find out about the

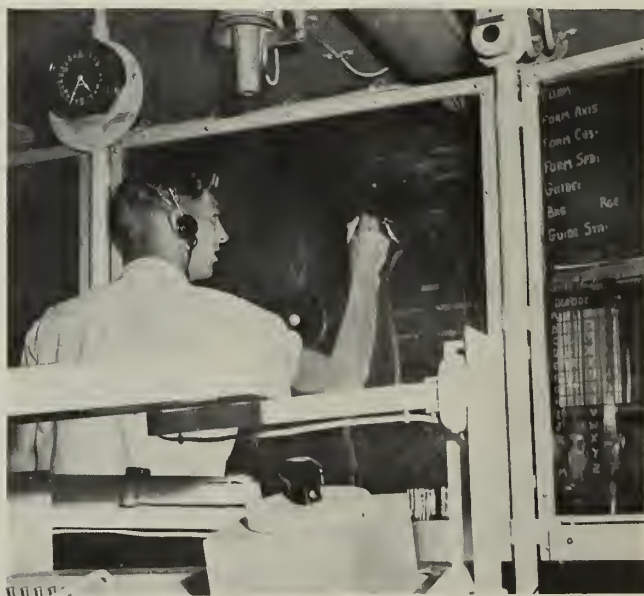
enemy through his own eyes and reports from lookouts.

Nowadays, however, a battle might involve aircraft and missiles launched many miles from the center of action, and the commander of a Fleet or even the captain of a single ship has to rely on information from many sources in order to

find out what's going on. If the skipper himself had to go through all the reports from all these sources he'd be so tangled up in details that he wouldn't have time to turn around—let alone make decisions—and, before he knew what or who had hit him he'd have lost the battle.

The solution to this problem is

ON THE BOARDS—CIC men on board USS Northampton (CLC 1) and (Rt.) USS Prairie (AD 15) chalk up incoming facts.



the Combat Information Center, where radar operators, plotters, talkers, status board keepers, evaluators, controllers and coordinators work to collect and assimilate the data so vital to a modern naval operation with its many diverse components.

In short, a Combat Information Center is the central unit of a single ship, or force, charged with collecting and assimilating combat data in order to advise the CO or unit commander of the present situation and possibilities of the future. Another way of looking at it is to regard it as an overgrown computer, consisting of many men and machines.

The core of CIC is still radar, which almost everyone in today's Navy knows, gets its name from "ra(dio) d(etection) a(nd) r(anging)." If it's large enough, the image of any solid object (and even some not-so-solid ones, such as rain and snow storms), can be picked up on the radar screen. Radar isn't perfect, but, through its use of high-frequency radio waves to detect the presence and indicate the position of distant objects, it has almost completely eliminated the use of darkness, fog, camouflage, or the sun's glare as effective cover for attack.

A visitor, entering a darkened CIC for the first time, is confronted with an imposing array of radar repeaters used with the surface search, air search, and height finding radars; vertical plots, horizontal plots, and status boards, plus watchers, bystanders—and coffee cups. To add to the confusion there are loudspeakers rasping jargonese over several radio circuits, frequently interspersed with blasts from the intercom.

Here, in all this seeming confusion, reports, operation plans, and messages from operational commanders, from the radio room, sonar shack, signal bridge, from intelligence and radar operators and the lookouts are all brought together. These bits of information are then fitted into place like pieces of a jig-saw puzzle to form a complete picture of the situation around the ship. This "picture" shows up on the various plotting boards in the form of markings which indicate the positions and movements of all the ships and planes in the area.

The "modular combat information center," is a more recent concept. The modular CIC idea consists of a combat direction system which encompasses all the facilities needed



CRUISERMAN posts tactical information on vertical plot board in CIC.

to furnish data to a central information agency. CIC is now organized into centrally supervised functional groups known as "modules," which furnish their specialized information to the central or display and decision module.

Physically, the modular CIC is a large arena usually located well amidship. Around the edge of the arena are the various modules. In the center of the arena, surrounded by status boards, is the display and decision module, where information

fed in from the other modules is evaluated. From here, recommendations and decisions are sent to the commanding officer and task unit commander for action.

Consideration is given to the comfort of the men who work in CIC. Air-conditioning keeps the room temperature at 78 degrees effective temperature. The area is completely sound-proof, and all equipment that doesn't demand monitoring by CIC personnel is located elsewhere in the ship.

WHAT COOKS?—Modular CIC of USS Oriskany has closed circuit TV.



Meet the Grasshopper

FLYING BOATS have been with us for a long time. Now we can look forward to a flying combatant ship (with underwater wings, yet) that will chase subs at speeds up to 60 knots. At the moment, however, it will not go under the water after them.

We're talking about a hydrofoil craft which will be known as a PC(H). The first of these will be a 115-foot, 110-ton prototype which is sure to give the most hard-bitten submariner a real headache.

PC(H) will very closely resemble a conventional type patrol craft but she has one important point of distinction—when she gets up and goes, she really does—literally. At higher speeds, the hull rises completely free of the water and is supported only by fragile-appearing hydrofoils. The ship is able to achieve these speeds with relative ease because she does not have to combat the drag of the hull in the water.

Powered during foil-borne operations (technically known as “fly-

ing”) by two 3000-hp gas turbine engines, PC(H) will be able to carry a payload up to 2000 miles at slow speeds (below 25 knots) or some 700 miles on hydrofoils at 40 to 60 knots.

In normal displacement conditions at speeds below 25-30 knots—when the hull is in the water—the craft will ride in the water much like conventional ships, yet will be more seaworthy. At this phase, the PC will be propelled either by the gas turbines or by an auxiliary 600-hp diesel engine.

If this model is successful, the Navy hopes to build larger ships in the range of 250 to 300 tons. (Standard displacement for a coastal minesweeper is 320 tons.)

THIS SHIP is most important to the Navy because it will help improve the grasshopper technique. It will sit quietly in the water listening for submarines much like any other Navy ship. Then, when she makes

sonar contact, she can dash to the area of contact at speeds around 60 knots. Ideally, the technique would use two such ships.

Captain James J. Stilwell, Head of the Preliminary Design Branch, Bureau of Ships, has said: “We are confident that we can build a 100-ton craft and we have proposed a research craft of about two-and-one-half to three times this size. At that time, we would perhaps be in a position to look forward to one even larger. We aren't talking of something the size of a large destroyer, cruiser or ocean liner. At the moment, this is out of the question.”

PC(H) will fly on one of the four basic types of hydrofoil systems, the submerged foil which remains at a constant depth below the surface. Although maintaining the proper depth was somewhat of a problem at first, recently the Navy developed an electronic auto-pilot which seems to control the depths of the foils quite successfully. This

A MEAN GO-GETTER—New hydrofoil sub chaser will fly over the water after submarines at speeds of 40 to 60 knots.



Ships

auto-pilot must be extremely accurate, however, since hydrofoils deal in inches, not hundreds of feet like an airplane.

WITH THIS ELECTRONIC AUTO-PILOT system, the foils can ride just below the surface of the water. Correct foil depth is maintained by moving flaps on the foils much like an airplane is controlled with the wing flaps.

Older hydrofoil craft—and some craft now being studied in the United States and abroad—use the surface-piercing ladder-foil types. This is a much simpler device, in which the lifting surfaces resemble venetian blinds along a strut going into the water. Here again the water passes over the blind-like device to lift the craft almost free of the water. These foils ride partly submerged and partly on the surface.

Another type is shaped like a “V” or “U.” As the water passes through this “V,” it raises or lowers the craft, depending on the weight and speed of the boat. At top speeds, just enough of the foil remains in the water to balance the craft. Like the ladder type foils, duplicate foils are placed aft to keep the boat level.

A fourth type foil system uses a submerged foil aft and two slippers or skids forward which slide along on the surface of the water. In this case, the craft itself acts as a control lever. If the boat is too heavy or is going too slowly, the after foil sinks into the water. The slippers forward, however, stay on the surface which increases the attack angle of the foils aft. This tends to bring the aft end up and keep the boat level.

ONE OF THE PROBLEMS in the development of hydrofoil boats has been their performance in a following sea. Hydrofoil boats get their lift from the speed and angle of the water which flows over and under the hydrofoil much like an airplane gets its lift from air which flows over and under the wings. In a following sea, the waves come up from the stern, and there is a rotary motion which pushes forward and down on the foils. This slows down the forward motion and unless a big change can be made in the angle of the foils and also an increase in



RIDING HIGH—*Halobates*, an early Navy hydrofoil test craft, lifts out of the water on its submerged hydrofoils while cruising at very high speeds.

the boat's forward motion, the craft may stop flying.

If this happens, it is again necessary to go through take-off procedures to get the boat foil-borne. Submerged foils—similar to those used on the PC(H)—seem to have solved that problem.

Further research is required in the design of the foils for boats which will travel faster than 60 knots. Like ship propellers, which build up a partial vacuum at high speeds (cavitation), foils also when going through the water at high speeds develop this same type of vacuum.

Although this will be a major

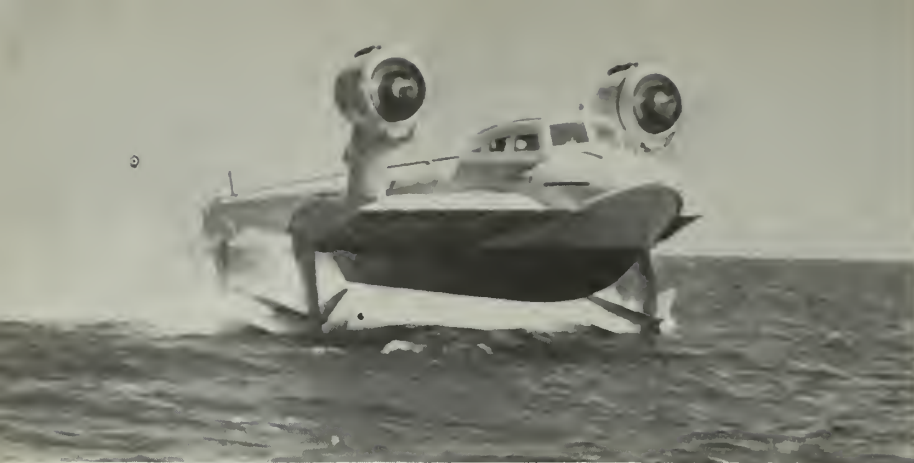
headache as ships reach higher speeds, Navy experts believe that by making the foils wedge-shaped, the cavitation, or vacuum, will be formed far enough behind the foils so that it will not hinder their operation.

WHAT HAPPENS WHEN the foils get fouled or if they should hit a floating obstacle? Here's what CAPT Stilwell had to say about this.

“We have run over logs and similar obstacles and usually the log comes out second best. Seaweed, however, is a little bit stickier in its consistency. But even then, with a suitable sweepback so there is a

SEA LEGS—Success of this five-ton craft led to Navy's ordering PC(H).





FOILED—Early Navy hydrofoil craft looked like seaplane without wings.

little flow-out toward the tips of the foils, you are able to shed it in most cases.”

Rear Admiral R. K. James, USN, Chief of the Bureau of Ships has commented that the worst that can happen to you is that you would stop flying and become a displacement craft.

Another spokesman for BuShips added, “I have seen a locust log about five inches in diameter which had been hit by one of our smallest hydrofoil craft and the log had been

practically chopped in two. There was apparently no damage to the foils.”

During tests by the U.S. Coast Guard, one and then both foils have been knocked from under a hydrofoil boat without wrecking the craft. According to reports, the boat merely settled into the water and stopped.

Hydrofoils are not a new concept. One of the first successful hydrofoil boats was designed in 1898. It used ladder-type foils. In the early 1900s

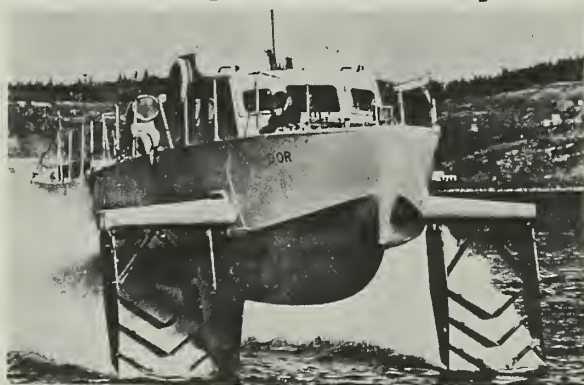
the Wright brothers got into the act and did some research in foil boats. A little later a U.S. Navy captain and an Italian designer did further work on surface-piercing and ladder-foil boats. In about 1918 a group of men headed by Dr. Alexander Graham Bell built and tested a boat that set a motorboat speed record of over 70 miles per hour. It was an 11,000-pound craft, had ladder foils, and was propelled by two aircraft engines.

BETWEEN 1934 AND 1937 the interest in hydrofoils quickened in Europe. About this time the configuration with the skis forward and submerged foil aft was invented. “V” foils were also developed about this time. These are still widely used by Germany, Italy, Switzerland, and the Netherlands.

During the later thirties and in World War II about seven boats, all using the V-foil, were developed in Europe. They ranged up to about 80 tons and were apparently quite successful.

After the war, interest in hydro-

Developments in Hydrofoils of Foreign Countries



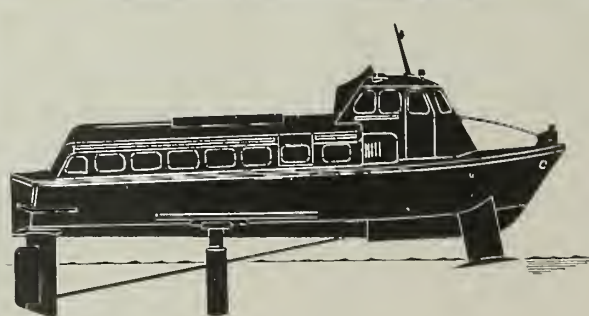
Canadian Hydrofoil Bras D'Or



England—First Successful Submerged Foil



Italian Passenger Ferry



Dutch Aqua-Bus



HI-POCKETS tests out V-type surface piercing foils. Rt: Drawing shows craft planned by Maritime Administration.

foil craft was picked up by a Swiss company and later by an Italian concern. Both groups now have several ferry boats in operation.

In 1947, the U.S. Navy's Office of Naval Research became actively interested.

The first U.S. Navy test craft was the XCH-4, which was a small, radio-controlled model. After this model was successfully tested, a seven-ton boat was built that looked much like a seaplane without wings.

A combination of two foil systems was used on this craft. Small "V" foils were used like rungs on a ladder. As the boat gained speed or slowed down, the boat climbed or descended from one rung of the foil ladder to the next. It operated very well and in smooth water reached a speed of about 75 miles per hour. It was propelled by two airplane engines.

FOLLOWING THIS DEBUT into hydrofoil research, the Navy planned

and built several other boats which tested foils of many shapes.

Among the notables were *Hi-Pockets*, a V-foil type craft, *Halo-bates*, a submerged foil amphibious-type craft, and probably the most successful hydrofoil boat yet built by the Navy, *Sea Legs* which also used submerged foils.

It was after successful flights of *Sea Legs* that the Navy took one more giant step forward in the development of hydrofoils by ordering a PC(H).

Although the contract has now been let for the construction of the U.S. Navy's first operational-type hydrofoil, the idea and first design of the PC(H) have been under study in the Preliminary Design Branch of BuShips for more than a year.

Construction of an 80-ton hydrofoil is now underway by the Maritime Administration. It is expected to do 60 knots or better.

The U.S. Coast Guard is also interested in hydrofoils. Seaworthiness

is its main concern. Since hydrofoils can operate at high speeds in rougher water than any conventional craft, they seem well adapted to Coast Guard operations.

Canada has operated a hydrofoil at about 70 knots near Halifax, Nova Scotia, and now has in operation a 17-ton version of this boat.

In Italy and Switzerland hydrofoil boats as large as 27 tons are in use as ferry boats.

It appears that hydrofoil boats may be an important addition to the Navy's armament of ships, especially in the ASW field. Many experimental craft have been built both in this country and abroad which have proved the idea feasible.

Now it's up to the Navy's planners. Hydrofoils are still not perfected, but Navy officials believe they have an operational hydrofoil in the PC(H) that will not only serve as a research vehicle, but also be one of the most useful ASW boats to come along in recent years.

—Erwin A. Sharp, JOC, USN.

EARLY MODEL of *Halobates* skims over the water's surface, using submerged foils after and surface skids forward.



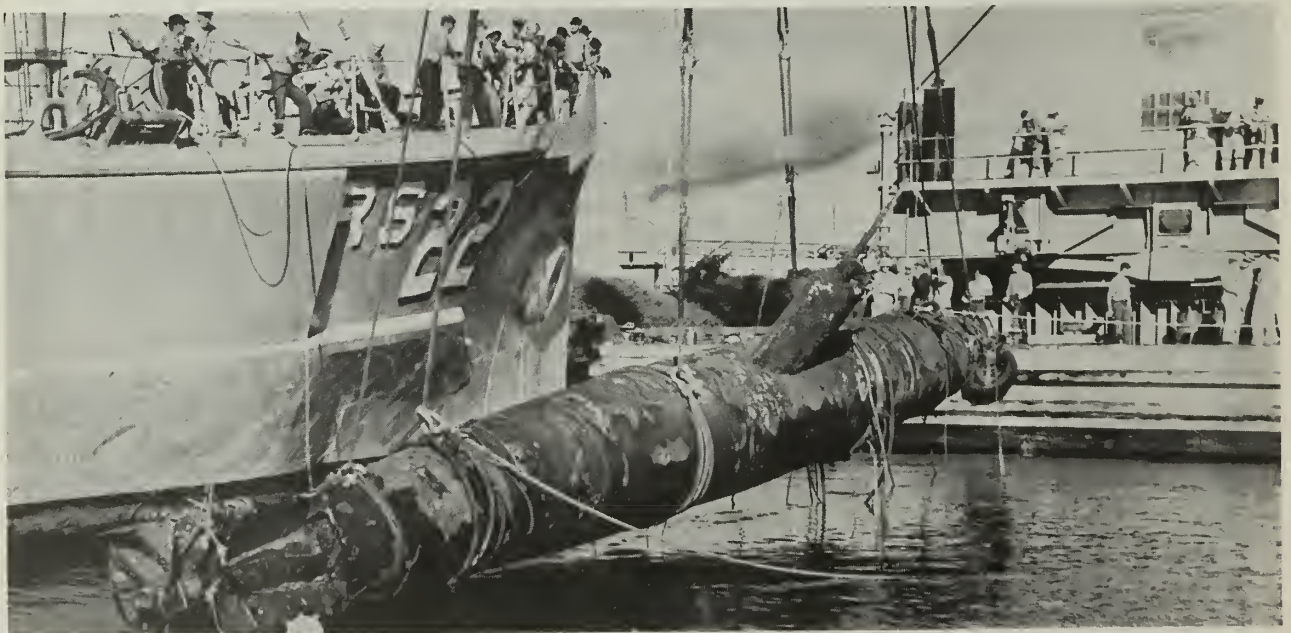
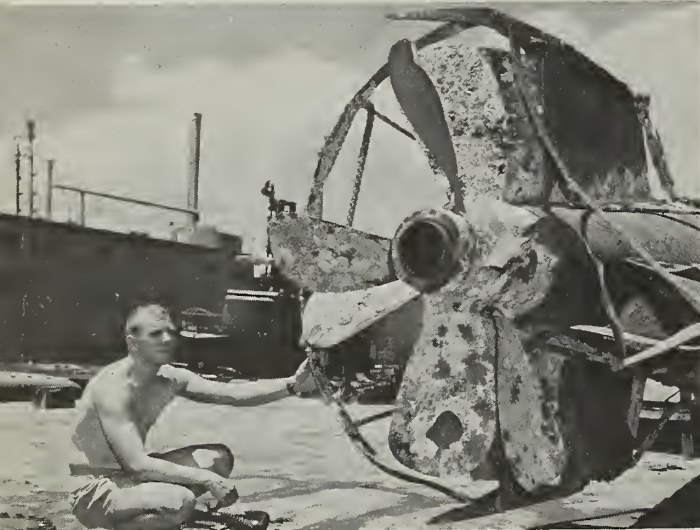


Midget Sub Raised

NEAR THE ENTRANCE to Pearl Harbor a small submarine surfaced for the first time after nearly 19 years below. However, no record was broken, unless it might be against the corrosive elements of the sea. The sub was a Japanese midget, sunk by a depth charge during the attack on Pearl Harbor.

The 80-foot sub had rested on a bed of coral 70 feet below the surface until it was recently discovered by a group of Navy divers stationed at Pearl's sub base. The sub was brought to the surface by the salvage crew of *uss Current* (ARS 22) and a large floating crane that lifted it onto a barge. It was then towed to the harbor's West Loch where members of Navy Explosive Ordnance Disposal Unit One disarmed the two torpedoes and deactivated a scuttling charge.

Despite all these years with Davy Jones, only the bottom of the midget sub was badly deteriorated. A Japanese cider bottle was found corroded into the bottom. The fact that the conning tower hatch was un-





from Pearl Harbor

dogged and the fuze to the scuttling charge partially burned led to the belief that the crew had escaped before their vessel went down.

Definite identification of the submarine has not yet been made, although Navy authorities know that it is one of the five midget submarines brought to Pearl Harbor by the Japanese during the attack. Four have now been accounted for, but the whereabouts of the fifth remains a mystery.

Clockwise from Upper Left: (1) Disposal team commander LTJG J. Connor, USN, opens up sub's hatch. (2) Midget sub is on the "surface" after 18 years. (3) Divers work cables under hull. (4) Deck hands on board USS *Current* handle lines. (5) Divers go below to check the situation prior to lifting operations. (6) F. J. Rowland, GMC, USN, scrapes coral from torpedo for disarming. (7) Sub is lifted out of water. (8) C. F. Buhl, SF1, USN, who spotted sub on diving exercise, looks it over. Its days at sea are finally at an end.





It's Good Duty —

A Cruise in the Mojave

LOCATED in the Northern Mojave Desert, 150 miles north-northeast of Los Angeles, Calif., in a corner of the U.S. Naval Ordnance Test Station is the U.S. Naval Air Facility, China Lake, Calif.

Its mission reads: "Maintain and operate facilities and provide services and material to support research, development, test and evaluation operations of the U.S. Naval Ordnance Test Station, China Lake, Calif., and other activities and units as designated by the Chief of Naval Operations." To accomplish this,

there are 35 officers, 445 enlisted men and 55 aircraft, plus associated ground support equipment.

The 55 aircraft operated and maintained here are enough to give ulcers to the toughest of maintenance crews. They include 18 types and 22 models which date from the F6F of World War II to the newest and fastest operational models of the present. Among these blowtorches and churning machines, there are: F6F drones, AD Skyraiders, T-28's, HRS's, P2V Neptunes, A3D Skywarriors, A4D Skyhawks,

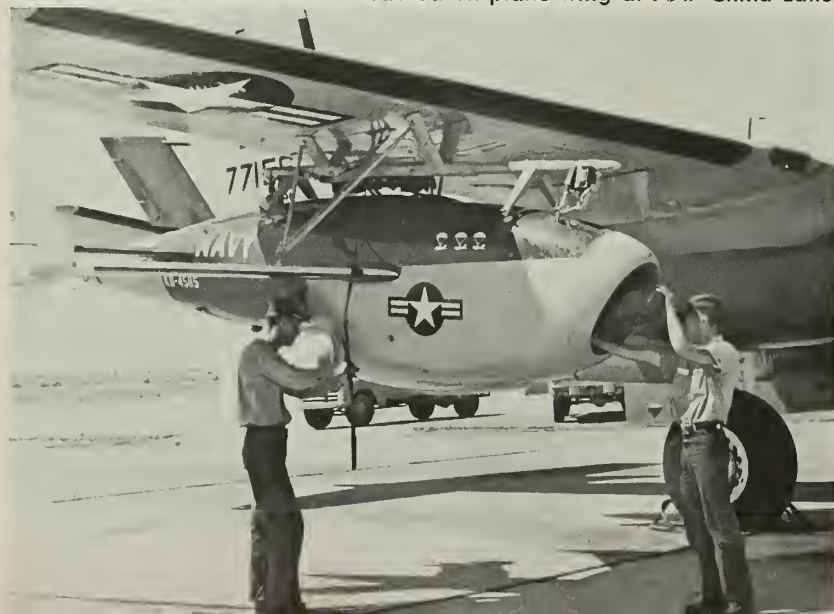
FJ Furies, F3D Skynights, F4D Sky-rays, F8U Crusaders, F9F Cougars and F9F drones. In addition, located at the Naval Air Facility is the only operational F-104 Starfighter operated by the United States Navy. Not included in this list are the pilotless drones, the KDA, KDB and the KD2R drones.

SOME OF THE PROJECTS on which these aircraft earn their keep are the Sidewinder air-to-air missile, the Zuni air-to-ground rocket, the AN/APQ-71 radar, the AN/ASB-7 and the AN/ASB-8 Bomb Direction Systems, Boar air-to-ground rocket, Side Lobe Suppression radar, and many other projects.

Aside from these research and development projects requiring Air Facility pilots and aircraft, there is another phase of work which requires aircraft and pilots but in a somewhat different vein. That is the target aircraft or drone service.

The Air Facility can provide NOTS with every conceivable type of target aircraft service available in the Navy today. This service in itself is one of the most time-consuming services that the Air Facility provides, but which is necessary to the advancement of naval ordnance. It is not unusual for the Air Facility to present five different target air-

TARGET TIME—A KDA drone is readied on plane wing at NAF China Lake.



ALL HANDS

craft within a week for some of the many NOTS projects.

This may not appear to be a large order. However, when measured on a manpower basis, which includes highly qualified enlisted ratings, numerous civilian technicians and highly skilled pilots for control, this job approximates a command within the command. CO of NAF China Lake is CAPT Theodore A. Grell, USN. He and his exec, CDR Gene Anderson, and the entire crew at China Lake have their hands full. There's no time for boredom, on or off duty, they claim.

THE PROJECTS are originated by NOTS and sponsored by the Bureau of Naval Weapons and the Chief of Naval Operations. The Naval Ordnance Test Station conducts the research and development of projects before and during their



CHINA LAKE pilot prepares for drone control flight as plane captain assists.

Desert

flight evaluation and testing at the Naval Air Facility.

When the projects are ready, they are assigned to aircraft of the Naval Air Facility. A project pilot from NAF is assigned to study the particular piece of ordnance or airborne equipment, furnish technical and operational advice during its installation in the aircraft, and finally fly with the project during its research, development and test phases. Some of these projects are short-lived; some continue for years.

In addition to these projects is the routine task of maintaining the aircraft and doing the sort of work performed by any Naval Air Facility. The transport aircraft furnish communication between this remotely



located base and the outside world. The maintenance and ordnance shops furnish support to the many visiting aircraft and squadrons that come to conduct business or receive training on the ranges.

These firing ranges are operated by NOTS, but the scheduling is administered by NAF. The ranges include the instrumentation to evaluate any type of missile and rocket

firing or type of aircraft delivery, whether it be high-altitude-level bombing or tree-top loft bombing and rocketry.

THE ORGANIZATIONS aboard the Naval Air Facility include Air Development Squadron Five (VX-5) and the Aviation Ordnance Department of NOTS. Each is assigned one-half of a hangar plus buildings and

NO HANDS—Ground crew gets set to launch F9F-6k drone, one of four types used in support of NOTS projects.





NAVY'S ONLY ONE—USAF Starfighter is used at China Lake. Rt: Air-to-air Sidewinders are loaded for test firing.

spaces for the necessary administrative work and project engineering. The Aviation Ordnance Department, (AOD) is concerned with the in-flight development, research and evaluation of airborne ordnance. AOD also handles the engineering problems which may be encountered when the future weapons are installed in aircraft. Air Development Squadron Five is responsible for developing and evaluating tactical maneuvers for the delivery of weapons by Fleet squadrons in the event of armed conflict.

Though remotely located, the Naval Air Facility is an excellent duty station for the sports-minded. Within a reasonable driving distance to the west and north are the Sierra Nevada mountains which offer hunting, fishing, skiing, boating, camping and other recreational facilities. A 90-mile drive to the east brings the

sight-seers to the lowest point in the United States—the impressive desolation of Death Valley.

The entire desert area offers unlimited possibilities for study and observation to the student of history of the far west. One of the richest gold and silver mining areas of California surrounds the area. Although most mines are now abandoned, an insight into the living conditions and characteristics of the early California miner can be obtained by spending a few weekends exploring the mines and shacks left by these wanderers.

ABOARD NAF AND NOTS are facilities for many forms of recreation, entertainment and education. These include a shopping center, movie theatre, gymnasium, swimming pools, civilian recreation center, enlisted men's and officers' clubs.

Duty at China Lake is further en-

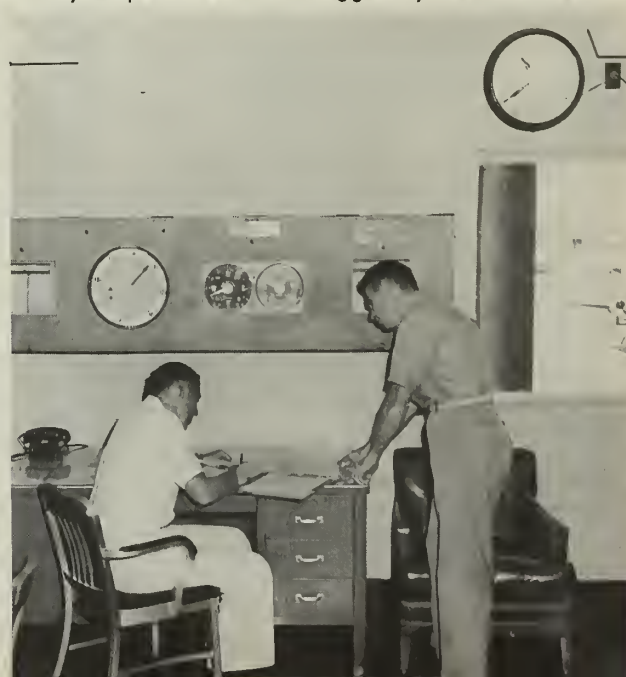
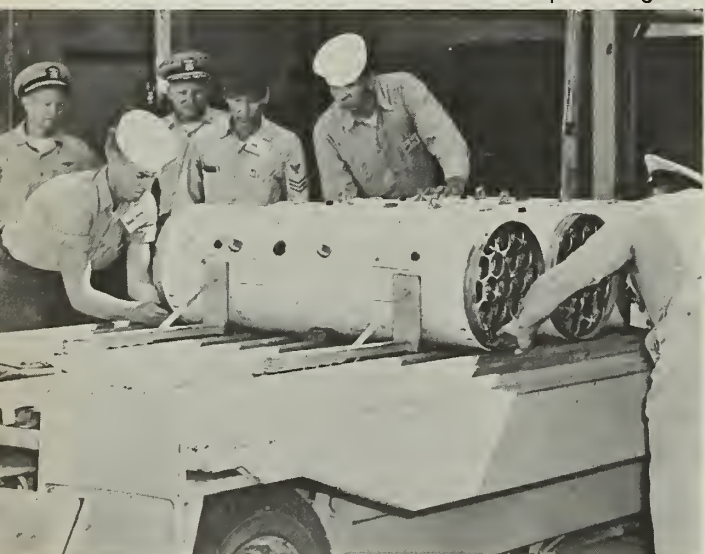
hanced by the opportunities available for those who want to participate in high school and college level courses sponsored by NOTS. These courses are primarily directed at the engineers, scientists and professional administrators attached to NOTS, but are available to all who can meet the prerequisites for entry.

The desert climate, said to be one of the most healthful in the world, varies considerably in temperature from an average low of 31 degrees in December to an average high of 102 degrees in July. Flying conditions are ideal for research and development work. There is an average of 347 days a year of VFR weather. The average annual precipitation is 0.19 inches. In other words, dry.

You'll find duty in the Desert Navy very interesting.

—LT R. G. Blackwood, USN

HOT SHOTS—Ordnancemen load rocket pods. Right: 'Cool' May temperature of 98 is logged by NAF weathermen.





IN TRIBUTE—Ships of 14 nations anchor in front of the Monument of the Discoveries to honor Prince Henry.

Salute to a Great Navigator

NOT LONG AGO the unusual sight of a line of ships passing under full sail and the ear-splitting sound of a 21-gun salute by 32 ships was experienced by members of the Sixth Fleet participating in a salute to Prince Henry the Navigator.

Ships of 13 navies gathered to honor the 15th-Century Portuguese scientist and explorer whose discoveries opened the seas to world navigation. The Sixth Fleet ships and 29 others of the international naval review sailed in columns of two and as they passed the spot on the bank of the Tagus River where Prince Henry established his famous navigation school, each ship rendered honors with a 21-gun salute. Memories of bygone days were heightened as a

column of majestic sailing ships cruised past the sleek modern warships. The Sixth Fleet men learned that these canvas-flying ships serve a utilitarian as well as decorative purpose, since they are still used as training ships by several nations.

The shoreside part of the celebrations included a military parade in down-town Lisbon. Representing the U.S. Navy in this event were six companies of Sixth Fleet bluejackets, Marine and midshipmen.

These ceremonies climaxed Portugal's year-long commemoration of the 500th anniversary of the death of Prince Henry, and as the Navymen explored the city of their Portuguese host they made discoveries in the way of hospitality and friendship.



IN TOWN U.S. Navymen step out. Below: Honors are given to Portuguese and Brazilian presidents.

NEW AND OLD ships of the sea pass during Portuguese International Review.





USS Randolph (CVS 15)



USS Helena (CA 75)



USS Ticonderoga (CVA 14)

These Ships Will Fly the

THE BATTLE EFFICIENCY PENNANT for fiscal year 1960 has been awarded to 113 Navy ships—62 of them in the Atlantic Fleet, 49 in the Pacific Fleet, and two in the Naval Reserve Training Command.

For some of these ships it was a new experience—for others a repeat performance. But no matter if the ship was decorated with an "E" for the first award or a hashmark for a repeater, it's a great honor to earn.

Here is a list of the ships that won the Battle Efficiency Pennant for fiscal year 1960 (For a complete "E" award story, see the July 1960 issue and this issue, p. 49.):

AIR FORCE, ATLANTIC

Forrestal (CVA 59)
Randolph (CVS 15)
Greenwich Bay (AVP 41)

CRUISER FORCE, ATLANTIC

Canberra (CAG 2)

DESTROYER FORCE, ATLANTIC

Remey (DD 688)
Bearss (DD 654)
Compton (DD 705)
Peterson (DE 152)
Barton (DD 722)
Harold J. Ellison (DD 864)
Dyess (DDR 880)
Hawkins (DDR 873)
Warrington (DD 843)
William C. Lowe (DD 763)
Allen M. Sumner (DD 692)
The Sullivans (DD 537)

USS Peterson (DE 152)

Waldron (DD 699)
Norris (DDE 859)
O'Hare (DDR 889)
Waller (DDE 466)
Stormes (DD 780)
Holder (DDE 819)
Courtney (DE 1021)
Lester (DE 1022)
Mills (DER 383)
Roy O. Hale (DER 336)
Glennon (DD 840)
Davis (DD 937)
Blandy (DD 943)
Grand Canyon (AD 28)
Sierra (AD 18)

MINE FORCE, ATLANTIC

Bluebird (MSC 121)
Adroit (MSO 509)
Valor (MSO 472)
Aggressive (MSO 422)
Yazoo (AN 92)

AMPHIBIOUS FORCE, ATLANTIC

Wood County (LST 1178)
Fort Mandan (LSD 21)
Taconic (AGC 17)
Rockbridge (APA 228)
San Marcos (LSD 25)
Rankin (AKA 103)
LCU 1486

SERVICE FORCE, ATLANTIC

Suribachi (AE 21)
Rigel (AF 58)
Alcor (AK 259)
Chukawan (AO 100)
Truckee (AO 147)
Pecatonica (AOG 57)

USS Canberra (CAG 2)



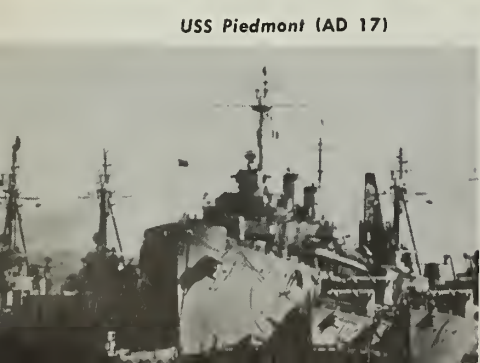
USS Waller (DDE 466)



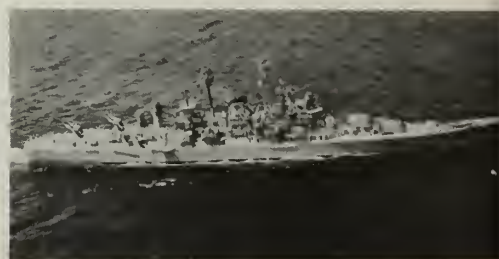
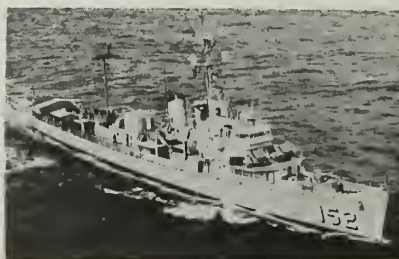
USS Pine Island (AV 12)



USS Truckee (AO 147)



USS Piedmont (AD 17)





USS Aggressive (MSO 422)



USS Roy O. Hale (DER 336)



USS Skipjack, SS(N) 585



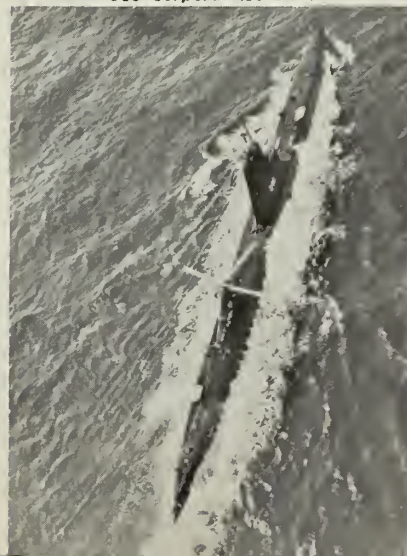
USS Richard S. Edwards (DD 950)



USS Forrestal (CVA 59)



USS Stormes (DD 780)
USS Corporal (SS 346)



USS Valor (MSO 472)



USS Growler (SSG 577)



Battle Efficiency Pennant

Tutuila (ARG 4)
Opportune (ARS 41)
Utina (ATF 163)
Weatherford (PC 618)

SUBMARINE FORCE, ATLANTIC

Hardhead (SS 365)
Conger (SS 477)
Corporal (SS 346)
Cobbler (SS 344)
Croaker (SS 246)
Skipjack, SS(N) 585
Atule (SS 403)
Kittiwake (ASR 13)
Howard W. Gilmore (AS 16)

AIR FORCE, PACIFIC

Ticonderoga (CVA 14)
Hornet (CVS 12)
Pine Island (AV 12)

CRUISER-DESTROYER FORCE, PACIFIC

Helena (CA 75)
Piedmont (AD 17)
Hamul (AD 20)
Richard B. Anderson (DD 786)
George K. MacKenzie (DD 836)
Somers (DD 947)
Richard S. Edwards (DD 950)
Lyman K. Swenson (DD 729)
Morton (DD 948)
Ernest G. Small (DDR 838)
Uhlmann (DD 687)
Shields (DD 596)
Trathen (DD 530)
Ingersoll (DD 652)
Preston (DD 795)
John S. McCain (DL 3)
Bridget (DE 1024)

Forster (DER 334)
Walton (DE 361)

MINE FORCE, PACIFIC

Woodpecker (MSC 209)
Prime (MSO 466)
Excel (MSO 439)
MSB 54
MSB 30
Mine Division 112

AMPHIBIOUS FORCE, PACIFIC

Union (AKA 106)
Tulare (AKA 112)
Mathews (AKA 96)
Montrose (APA 212)
Westchester County (LST 1167)
Wastenaw County (LST 1166)
Tioga County (LST 1158)
Wexford County (LST 1168)

SERVICE FORCE, PACIFIC

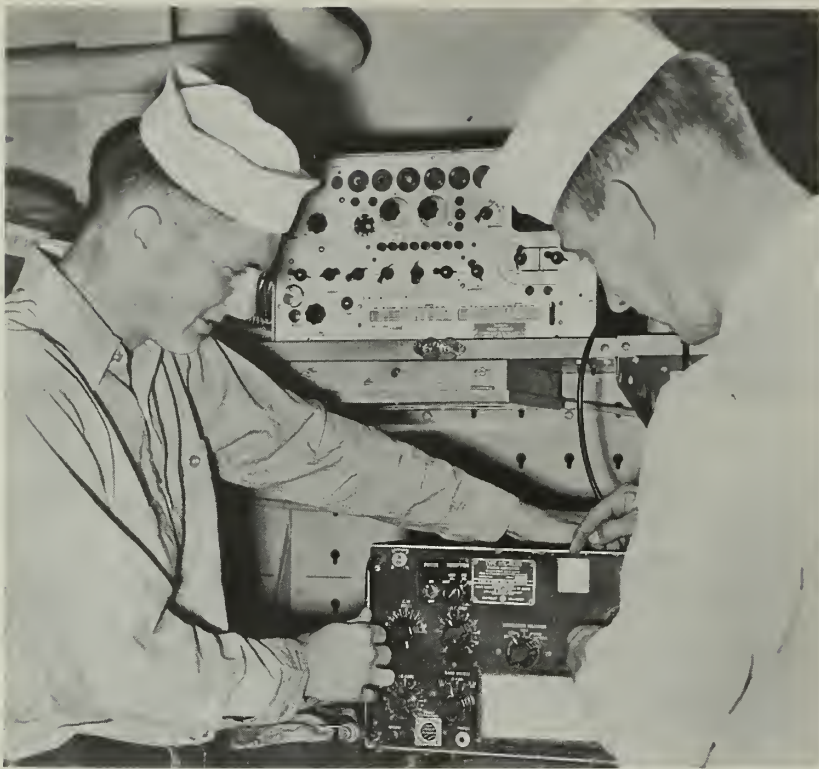
Mount Baker (AE 4)
Vega (AF 59)
Cacapon (AO 52)
Passumpsic (AO 107)
Genesee (AOG 8)
Pollux (AKS 4)
Bolster (ARS 38)
Mataco (ATF 86)
Ute (ATF 76)

SUBMARINE FORCE, PACIFIC

Salmon (SSR 573)
Greenfish (SS 351)
Growler (SSG 577)
Sea Fox (SS 402)

NAVAL RESERVE TRAINING COMMAND

Cockrill (DE 398)
DeLong (DE 684)



Electronics Technician



Radioman

Electronics Experts

MAN-MADE SPACE SATELLITES are sending signals back to earth from distances which were considered impossible a few years ago. The moon and meteor trails are being used as reflecting media for radio transmission. Automatic switching is in operation, transmitting at speeds of more than 100 words per minute. Other electronics projects are in advanced stages of development and evaluation.

Keeping pace with this rapid progress in the fields of electronics and communications is an important part of Naval Reserve training. If you should visit any one of the nearly 200 Naval Reserve electronics divisions, however, you would find that Reservists have not abandoned the use of manually keyed radio transmission. The "brass pounder" is a long way from becoming obsolete.

During the past year, the Reserve electronics lash-up has undergone a number of organizational changes. The pay units of the former "Electronics Program"—electronics divisions and battalions—have been assigned to the Surface Program, as

part of the "Active Fleet Augmentation Component" of the Selected Reserve.

Each electronics division has an allowance of five officers and 50 enlisted men. When two or more divisions are located in the same area, a battalion may be formed with a staff of three officers and one EM.

The primary function of the divisions is to provide rate training for enlisted Reservists. The prescribed allowance includes ratings normally assigned to a ship's Operations Department.

Divisions are established at Naval Reserve Training Facilities and Electronics Facilities; they are not authorized at Naval Reserve Training Centers supporting Surface Divisions.

Reservists assigned to electronics divisions have pre-cut mobilization orders; they would be ready for immediate assignment to active duty in Fleet billets.

NOW LET'S TAKE A LOOK at the electronics setup at the naval district level—using the Eighth Naval District as our example—and see

what keeps it humming.

ComEight now has 38 electronics divisions in operation; one additional division is authorized. ComEight also has four electronics battalions. More than 2500 Reservists take part in ComEight's electronics training—making use of 31 Naval Reserve Electronics Facilities and three Electronics Stations.

Radarmen, radiomen, electronics technicians and signalmen are learning techniques of seeking out and destroying the enemy. All are being welded into a trained team for maintaining the Navy's vital communications.

And that isn't all. The Eighth ND electronics setup includes a Master Control Radio Station (NDF), located at New Orleans, La. In addition, there are more than 60 radio stations located in various NRTC's, NRTF's and NREF's, plus approximately 100 Reservist "ham" radio operators.

Administration of this network and correlation of the training schedule of some 40 basic training circuits (night drills), 25 daytime training circuits, and seven ham cir-



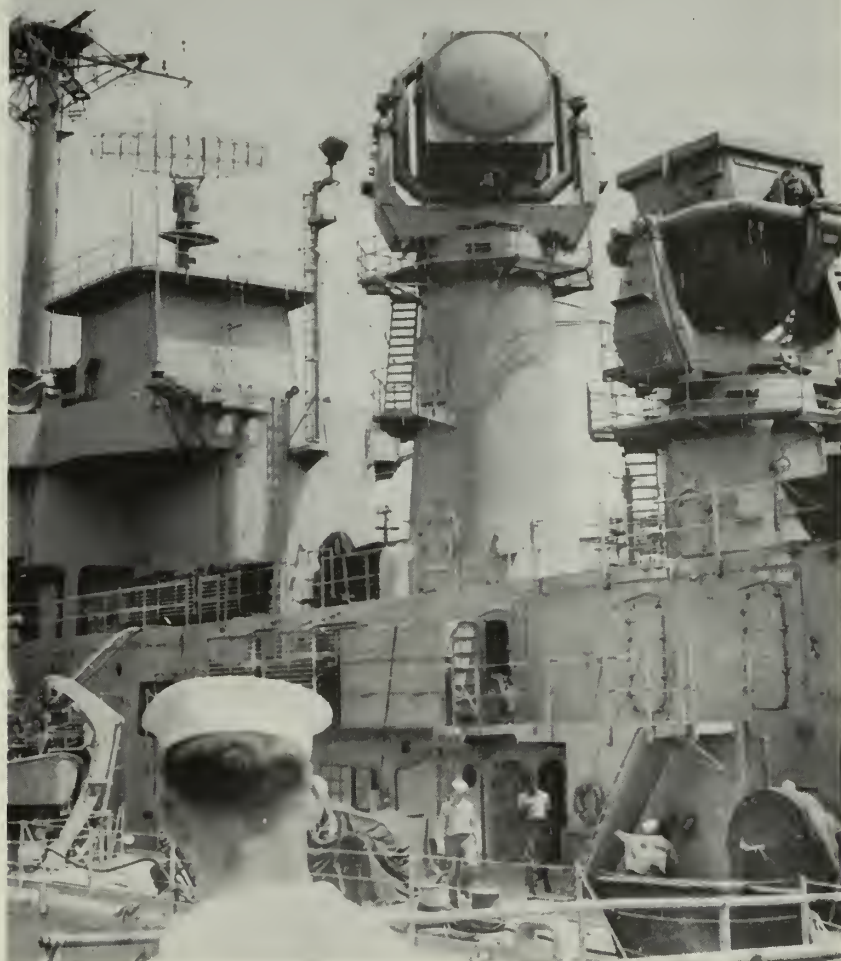
Signalmen

on Ice

cuits is the responsibility of Eighth ND's Reserve Master Control Radio Station. NDF is the only operational radio station available to the commandant. In addition to the circuits named above—all of which are activated at least once a week—NDF operates on special circuits which give direct contact with Washington and other naval districts' Master Control Radio Stations in the continental United States. All radio stations in the district are on the air daily, so that it is possible for HQ-to-field and field-to-field contact.

Use of these circuits keeps communications personnel proficient in CW, voice and radioteletype (RATT) operating procedures. Com-Eight now has 16 complete send-and-receive RATT installations. Several locations have receiving equipment only. Eventually, complete send-and-receive RATT gear will be in all NRTCs, NRTFs and NREFs.

THIS RESERVE COMMUNICATIONS NETWORK stands ready to supplement the facilities of the Naval Communications System in the event of an emergency. It also provides



NR ELECTRONICS program has been reorganized to provide better training for ratings dealing with complicated communications gear of today's ships.





COURSE for ECM operators includes electronic signals from foreign ships.

How to Recognize Signals of Foreign Ships

Many Navy ECM operators have never seen or heard signals from foreign radars or other foreign electronic emitting equipment. This is due to the infrequency of interception and distances involved.

To fill this gap in Fleet Training the Chief of Naval Operations recently established the Electronic Warfare Recognition Program.

This program will be similar in nature to the Aircraft and Warship Recognition Program now in force, and will encompass all ships, stations, and aircraft squadrons charged with the responsibility of intercepting signals for tactical or intelligence purposes.

The Naval Training Device Center, Port Washington, New York, is procuring a quantity of Sound/Slide

Projectors to be used as instructional aids in this program. Slides for use with the projectors will show signal analysis and antenna patterns, together with a coordinated tape recorded presentation explaining the displayed characteristics. These slides and tapes are being arranged for lessons of about twenty minutes each and will include signals from U.S. and foreign sources. The Sound/Slide Projector thus enables instruction to be given, without specially trained instructors, to any sized group, and in any convenient room.

The projector and programmed Electronic Warfare Recognition lessons will be available this fall and will be distributed to those activities designated by Fleet Commanders.

British



Spanish



THE PATTERN—Sound/slide projector will show signals from other navies.

communications links with communities in time of local disasters, such as hurricanes, storms, or floods. For this purpose, most of the Reserve radio stations maintain an emergency generator. Each station keeps a current "emergency communications bill" which contains instructions for local civil liaison.

Not all electronics activity is a team effort, however. There's plenty of room for individual initiative and action. Consider A. L. Stewart, Jr., RM2, USNR, of Tulsa, Okla.

Stewart, who holds Eighth ND station call N8NBN, was not happy over the speed and accuracy of his key, so he "home-brewed" an electronic keyer. All he needed was a dual-triode tube, a voltage regulator tube, a relay, some other circuit components and plenty of know-how.

His do-it-yourself keyer insures that all dots and dashes are of equal length; it enables him to sling "lightning" on Navy practice nets at a much faster rate of speed. His unit is compact, about the size of a book, and it's inexpensive.

THE ASSIGNMENT of electronics divisions to the Active Fleet Augmentation Component limited the source of experienced and qualified Reservists who would be needed to bolster shore-based communications activities in the event of mobilization.

Accordingly, a Naval Reserve Communications Program was launched within the Shore Establishment Component of the Selected Reserve. To start this new program, 12 communications divisions were authorized with locations at Boston, Brooklyn, Philadelphia, Washington, Norfolk, Charleston, New Orleans, Chicago, San Diego, San Francisco, Seattle and Kodiak. Each division has an allowance of five officers and 45 EM. Members have pre-cut mobilization orders.

The Communications Program has a nonpay counterpart in the Specialist Reserve.

Back in the 1930's, the Communications Reserve—as it was called then—was considered the best organized group within the Naval Reserve. Reservists engaged in electronics and communications work today are maintaining their high reputation. If M-day comes, they'll be ready to bring you peacetime allowance up to full wartime strength.



FOAM FLINGERS—Trucks throw out foam during fire drill. Rt: Men move in on stubborn areas with hand lines.

NAS Smoke Eaters

NO MATTER WHAT the weather, when an aviator takes off or lands his aircraft at a Naval Air Station he can be sure that the Crash and Rescue crews are on duty and ready in the event of an emergency.

No one plans to have an accident, but it's reassuring to know that there is always a fully manned crash truck standing ready to roll at the first sound of the alarm.

Typical of these always-ready units is the one at NAS Brunswick, Me. When a telephone call comes into the alarm room there, the location and type of emergency are quickly passed on to the crash crew. As the units leave, the control tower operator picks up radio contact with each unit to relay and receive detailed information.

Speed is essential. A few seconds may mean the difference between life and death, minor fire or complete destruction. Therefore, constant training in rescue and fire fighting is a must at Brunswick.

To maintain the speed, team work, and skill needed to combat emergencies, realistic training in fighting aircraft fires is done on old, non-salvage-

able aircraft or mockups. When a hundred gallons or so of fuel is fired off, the crash crew goes into action. They first rescue a "dummy" from the cockpit, and then put out the fire.

Since the alarm sounds not only for crashes and other emergencies, but also for drills, a unit must treat each call as the real thing. Many calls are received in the tower from aircraft with rough-running engines, hydraulic trouble or some other aircraft malfunction. Any one of these could lead to a serious accident.

When such calls are received the crash equipment rolls into position about where the plane will touch down and then follows the aircraft until it comes to a complete stop. Many disasters have been averted in this way.

Fleet aircraft operating off carriers at sea can divert to Brunswick if necessary. In this case the crash crew can rig an emergency chain arresting gear for their tail hooks in a matter of minutes. If the landing gear cannot be lowered, a blanket of fire fighting foam can be applied to a portion of the runway. Sliding along on the foam not only reduces damage to the air-



DUMMY is rescued in 27 seconds.

craft, but also lessens the danger of fire.

Integrated teams of Navymen and civilians are on duty 24 hours a day at Brunswick.

The Crash and Rescue crews at Naval Air Station, Brunswick, also back up the structural fire department for other types of fires on the Station, and are available to help civilian fire departments.

The crews at Brunswick demonstrate the team work, and courage of Crash and Rescue units throughout the Navy who have saved the lives of countless pilots by being in the right place when they're needed.

—C. S. Brown, JO2, USN(W).

STITCH IN TIME—Crash crew checks plane engine for possible fire. Rt: Crash and rescue crew 'rolls out.'



LETTERS TO THE EDITOR

Naval Intelligence Clerk

SIR: Could you clarify for me OpNav Inst. 1221.1A, which concerns eligibility requirements for assignment of NEC Code YN-2505 (Naval Intelligence Clerk.)

Paragraph 5a of that instruction says "Male personnel in pay grade E-5 or higher," but no rating is specified. Does this mean that any Navyman of any rating—a storekeeper, for example—in pay grade E-5 or above may apply if he meets all the qualifications?—K.M.Y., Jr., SKCS, USN.

• NEC Code YN-2505 has been established to identify outstanding Navy-men whose eligibility for high security clearance has been established after undergoing a complete background investigation, and who possess the qualifications and/or potential for assignment to clerical type intelligence billets.

These billets require performance of predominantly YN-type duties, thus, with the exception of a very few men of other ratings who possess certain special qualifications, only YNs and a few PNs have been designated. There are no plans at present to expand the program to other ratings nor are requests from other ratings desired.—ED.

Pre-Commissioning Sea Duty

SIR: In December 1955 I was assigned to the pre-commissioning crew of USS Franklin D. Roosevelt (CVA 42), which was then undergoing conversion.

That ship was commissioned on 6 Apr 1956, and three days later I was detached to another one. I have been on continued sea duty ever since.

Did my sea duty begin when I joined

Temporary Lodging Allowance

SIR: Can I receive temporary lodging allowance for my family if they arrive overseas more than 60 days after I report aboard a ship permanently deployed there? — D.V.C., EMC, USN.

• No. Temporary lodging allowance can be paid only during the first 60 days after you report to your duty station overseas. At that time, you receive it only if government quarters are not furnished you and your dependents, you are required to get temporary lodging, and if you and your dependents actually occupy hotel or hotel-like accommodations at your own expense.

Joint Travel Regulations, Paragraph 4303, gives all the details about this.—ED.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

the pre-commissioning crew, or did it start when the ship was commissioned?

—J.P.D., SF1, USN.

• Your sea duty began when you reported to the pre-commissioning crew, and—unless we miss our guess—that part of your sea duty was probably the roughest of the lot.—ED.

Beeps, Gongs, and Bells

SIR: It seems to have become accepted practice in the Navy to use the Chemical Alarm (or beeps) or bells for the arrival, departure and passing of dignitaries and naval officers. There has been much discussion about this aboard my ship and little or no information to prove if this custom is right or wrong.

Would you answer these questions for us?

(1) Are the number of beeps received the same as the number of sideboys?

(2) How many beeps would a lieutenant commander get if he were a commanding officer?

(3) What is the proper phraseology of the word to be passed with the beeps, and should "staff gangway" be used for staff officers?—R.J.L., LT., USN.

• To use the chemical alarm to signify the arrival or departure of officers may be a practice on some ships, but it certainly should not be an accepted one.

Two publications that are aboard every ship in the Navy clearly state for what purpose the chemical alarm should be used. They are NWP-50 and NWIP-50-1. One says that the chemical alarm is used only to alert the crew when an atomic, biological, or chemical attack is probable or has occurred. The other says that "No person shall, without proper authority and due cause, tamper with, operate, or otherwise disturb any contact maker used to sound the general or chemical alarm."

And, even when boat gongs are used to signify the arrival of officers they are merely to alert certain members of the crew—boat gongs are not honors. In no place does Navy Regulations' discussion of honors (Chapter 21) say anything about using boat gongs for honors.

When the gongs are used to signify

the arrival of an officer, however, the number of gongs received is the same as the appropriate number of sideboys. If a lieutenant commander is a commanding officer, he should receive two gongs.

As for staff officers, after the correct number of gongs have been sounded, the word "staff" may be passed for senior officers. "Staff gangway" should not be used at all with boat gongs.—ED.

Dependent Medicare Program

SIR: I would like clarification of the Dependents' Medicare Program under SecNav Inst. 6320.8A which went into effect on 1 Jan 1960. I thought this program was established for the dependents of service personnel who were not near service medical facilities.

Take my family for example. We are about 200 miles from the U.S. Naval Hospital, Portsmouth, Va. According to my interpretation of SecNav Inst. 6320.8A, Medicare is only authorized for hospitalization. Must I pay for emergency office calls or if a physician is needed for a house call?

I think Medicare should provide for acute emergencies of any nature which are a threat to the life, health, and well-being of the patient.—R.P.N., HMC, USN.

• You have interpreted the Medicare instruction correctly—it is primarily designed for hospitalization. The civilian medical care program for dependents provides only for physicians to render authorized care during hospitalization. Care or treatment rendered by physicians in their offices, a home, or outpatient clinic of a hospital is not allowable from civilian sources at Government expense. The only exceptions are:

1. Care required by a physician be-

Travel for Children

SIR: If I go overseas for my next tour of duty, will I be allowed to take my non-dependent step-child with me? And if this is allowed, how much will it cost me?

—J.G., ET1, USN.

• So long as your non-dependent step-child actually lives with you and is dependent on you for a home, you may take him (or her) with you as a "member of the household." If you travel by MSTs, you will be required to pay the regular MSTs space available charge of \$1.25 per day for passengers under six years of age, and \$2.50 for passengers over six. On the other hand, if you travel overseas on MATS, no charge is made.—ED.

fore and after hospitalization for a bodily injury or surgical operation;

2. Prenatal and postnatal care in connection with authorized maternity services; and

3. Treatment of bodily injuries, including necessary diagnostic tests and procedures in treatment of fractures, dislocations, lacerations and similar wounds.

Of course, the Navy wants your dependents to use service medical facilities if available and adequate. If, on the other hand, the service facilities are not available or are incapable of providing the required care, a Nonavailability Statement (DD Form 1251) will be furnished. This will entitle them to receive authorized care from civilian sources.

You do not determine, however, if service facilities can provide care for your family. The decision as to whether a DD Form 1251 will be issued rests entirely upon authorities at the installation concerned.

If, in their opinion, a service medical facility within a reasonable distance from your home is capable of rendering the required or requested care, a Nonavailability Statement would not be issued. If, on the other hand, they feel that these service medical activities cannot render the required care, a DD Form 1251 would be issued.—ED.

Fitness Report

SIR: You said in your reply to G.S.Y., YNC, USN, in the May ALL HANDS, that a fitness report need not be submitted at the end of the quarter for a LCDR who reported to a command on 5 February. You stated that the period 5-29 February could be included in the next regular report since Article B-2203(4) of BuPers Manual gives a commanding officer authority to extend a report 30 days on either end of a regular reporting period.

If the officer in this case did not have



COOL CRUISE—USS Edisto (AGB 2) makes a pretty picture cruising in icy waters of far North while becoming first icebreaker to train midshipmen.

a delay in reporting from his last command and his proceed and travel time did not exceed six days, I agree.

However, if his proceed time, travel time and DELREP exceeds six days (which would have made his detachment in January), I feel that a report must be submitted. Article B-2203(f)6 of the BuPers Manual states that the reporting period starts the day after the date of detachment from his previous duty station.—L.H.K., YNCS, USN.

• *Technically, you're right. However, we have been advised by the Bureau division concerned that the intent of this article regarding the 30 days' latitude is to avoid as many "record purposes only" type reports as possible.*

The Chief of Naval Personnel gives

this article a very liberal interpretation, and in such cases would prefer that the report be extended for that short period, even though it runs slightly more than 30 days.—ED.

In Support of Forces in Lebanon

SIR: I have an entry in my service jacket which reads: "Served in support of the U.S. Forces in Lebanon, under the operational control of Commander Task Force SIXTY, from 12 Sep 58 to 25 Oct 58."

Is the Navy considering a medal, ribbon, or other award for this service? —R.C.J., AT2, USN.

• *No. After the crisis in Lebanon such a medal was considered, but it was disapproved.*—ED.

SIDE BY SIDE—USS Essex (CVS 9) and USS Saratoga (CVA 60) spell out greeting as they enter harbor at Mayport.



Pink Ships? You Bet!

SIR: Re the letter from N.C., SD1, USN, concerning pink ships, which appeared in your August 1960 issue. As one who was there, I can assure the Boats on *uss Stribling* that not only *Jouett* and *Davis*, but 10 other ships—more or less—of the South Atlantic Force too, wound up painted pink. It wasn't any pinkish gray either, but an out-and-out pink.

May I give you the story of how all this came about?

In late fall, 1941, I was serving as Chief Engineer in one of the old 1850 class two-stack destroyers, *uss Winslow* (DD 359). We had to lay into Boston Naval Shipyard for some repair work, and, since I lived nearby, I was able to grab a couple of days leave at home.

When I returned to the Shipyard, I couldn't find *Winslow*—and it was only after an extensive search that I found her high and dry in one of the dry-docks. But what a job I had recognizing her!

BuShips was, at that time, experimenting with a type of blue paint, hoping that it might help camouflage ships at sea more effectively than the black and white or gray finishes then in general use. *Winslow*, it seems, had been chosen as a guinea pig to give this blue paint a try, and there she sat—unmistakably blue.

To make matters worse, time wouldn't allow for a conventional paint job, so that blue paint had been slapped on over the coats of gray and black and white we already sported, plus salt, rust, barnacles and what-have-you.

We received orders to join a convoy (which I recall included *Queen Eliza-*

GROUND WORK — USS Terrebonne Parish (LST 1156) off-loads troops in Sixth Fleet amphibious exercises.

**Service for Hash Mark**

SIR: I spent two years in the Ready Reserve before I joined the regular Navy. Will I be able to wear one hash mark after two years on active duty?—R.G.S., DK3, USN.

• *Yes. Service—other than on the retired list—in the Navy, Naval Reserve, Marine Corps, Coast Guard, Army or Air Force may be counted toward determining your eligibility to wear a service strip.*

When you start counting service for gold hashmarks, (12 years' continuous good conduct) however, only continuous active duty in the Navy or Reserve may be counted.—Ed.

beth and Queen Mary) out of Halifax N.S., and help provide escort around Capetown and into the Indian Ocean. So, blue paint and all, we stood out to sea.

Now, I don't know if blue paint was a good idea or not, or whether BuShips ever experimented further with it. It may well have been a good idea in those portions of the oceans where the water is normally blue. However, that's neither here nor there so far as this story is concerned.

I do know that by the time we'd traversed thousands of miles of ocean, turned the convoy over to Australian naval forces in the Indian Ocean, and returned to the South Atlantic to join the Patrol Force there, our slapdash blue paint job had largely worn off, leaving us a something less than beautiful three-tone.

Something, obviously, had to be done—but in all of Capetown, the only shade of paint available was pink. It's true the skipper shuddered more than a little bit at the prospect of becoming the first pink ship in the U.S. Navy, but he finally concluded that pink was better than the shade we were in, so pink we became.

It wasn't long after that when we got the word to rendezvous with the rest of the South Atlantic Force.

The late VADM Jonas H. Ingram, Force Commander, was embarked in his flagship, the light cruiser *uss Memphis* (CL 13.) He was on the bridge the early morning we and other ships joined up with the main force, and, while he could easily see the other ships of more conventional hues approach, he was completely unaware that we had arrived until we were within just a few thousand yards of him.

Apparently the combination of tropical weather and early morning or late evening sunlight in that area produces a sort of pink smog, or, more accurately, haze in the air, which masked our approach perfectly. I understand that after the Admiral finally discovered our presence, and recovered from the initial shock of our appearance, he was mightily

impressed, muttered something about "a beautiful camouflage job," and forthwith issued orders that every ship in his force be painted pink.

My memory fails me now as to exactly which ships besides *Winslow*, *Jouett* and *Davis* got the pink paint treatment, but I'm sure there must have been at least 10-12 altogether. Nor do I know how long they remained pink, for I left that area for other duty in May 1942.

Before I left *Winslow*, however, we went through a shattering experience which I'm sure none of her crew will ever forget. Shortly after we became the first pink ship in the Navy, we experienced some mechanical difficulties. We were ordered to Charleston for emergency repairs, but first we had to make a stop in Norfolk.

I'm sure it won't tax your readers' imaginations too much to imagine the reception we got from other ships' crews when we hove into that teeming Navy town. The only word I can think of to describe it is—horrible.

That's about it. I just couldn't resist adding my two cents' worth to the tale of the Navy's pink ships. Perhaps some other readers who served in the South Atlantic Force at that time will be able to fill you in on some more details which I've overlooked or forgotten.

—CAPT Neal Almgren, USN.

• *We said when we printed that "pink ship" letter in the August 1960 ALL HANDS that we had a hunch someone would let us know a lot more about them, and we couldn't have been righter. Many thanks, Captain, and—you certainly don't have to apologize for your memory. A more colorful tale we haven't run across in recent days.*—Ed.

Dock Not Always A Slip

SIR: In your reply to Signalman First Class P.V.F. in the August 1960 issue you discussed deck log terminology. You made the point that "Resting on keel blocks as before" and "Docked as before" meant the same thing.

I believe you are in error inasmuch as a dock is defined severally as (1) a basin into which a ship enters prior to being drydocked, and (2) the slip between two piers, etc. It follows that it is not possible to be resting on keel blocks and docked at the same time.

I hold that it is proper to say that a ship (under certain circumstances) is being docked, but once the lines are over, she is then moored. With the water pumped out of the bottom of the drydock she is then drydocked.

—P.R.H., LT, USN.

• *Much of the confusion over the matter here goes back to the mis-use of dock for pier. As you say, "the slip between two piers" could be a dock. However, that space would more properly be a slip, the term you have already used. Or it could be a berthing area.*



OFF THE BEACH—USS *Hammerberg* (DE 1015) cruises past Copacabana Beach after visit to Rio de Janeiro.

As *Knights "Modern Seamanship"* puts it: "... strictly speaking a dock is a structure used for drydocking a vessel. The space between neighboring piers is called a slip."

"*Naval Terms Dictionary*" bears this out with this definition of dock: "Large basin either permanently filled with water (wet dock) or capable of being filled and drained (drydock or graving dock). Also a common though inaccurate term for pier or wharf."

The nub of the question, though, is as you put it. A ship in a drained drydock is drydocked. Therefore, "Drydocked as before" would probably be a more accurate term than "Docked as before." The former term is used in the Navy Training Course "Quartermaster 3 & 2."

Now we've still got that ship in drydock . . . and "Resting on the blocks as before" would also be correct, as borne out by the "Watch Officer's Guide."

To round this out, a ship alongside a pier or wharf would be "moored as before" while a ship at anchor would be "anchored as before."

Perhaps we are splitting hairs here. Docked could be considered a short version of drydocked.—Ed.

Filling Warrant Officer Billets

SIR: The warrant officer billet as Assistant Personnel Officer at this station is being made a PNCM billet. Unless certain changes are made in Navy Regulations about who may administer oaths and sign official correspondence, how can he do the job right?

It seems to me that if master chiefs are going to fill warrant officer billets, they should be allowed to administer oaths and sign official letters. Is this being considered?—A.G.S., PNC, USN.

• No. If the job needs a person who can sign official correspondence and administer oaths, it would be upgraded to an officer billet when no more warrant officers are available to fill it. On the other hand, if the position needs an administrator/supervisor and not necessarily someone to assume an officer's

responsibility, then it would be made a master chief's job.

That, apparently, was the deciding factor in your case. Since you have a personnel officer to act for the commanding officer, a master chief should be able to handle the job with little trouble.—Ed.

This Is The 'Most'

SIR: Some time ago, during one of your Navy-wide discussions of "firsts" and "mosts" in the Letters to the Editor section, the subject of most ships in a nest was quite thoroughly covered.

I remember one Chief wrote—a few years back—that he remembered seeing a photo of a submarine tender with quite a group of subs tied up alongside. I had some photos packed away in storage but I couldn't at the time check them to verify the chief's tale.

For what they are worth, here they are. The tender is USS *Howard W. Gilmore* (AS 16). The setting, dear old Subic Bay, and the year—some time in mid-1945. In one shot you can see that both port and starboard have—by assumption—17 subs made up alongside and one either coming into the nest or leaving. The assumption is that one sub is out of sight against the port side of *Gilmore*. No record claimed.

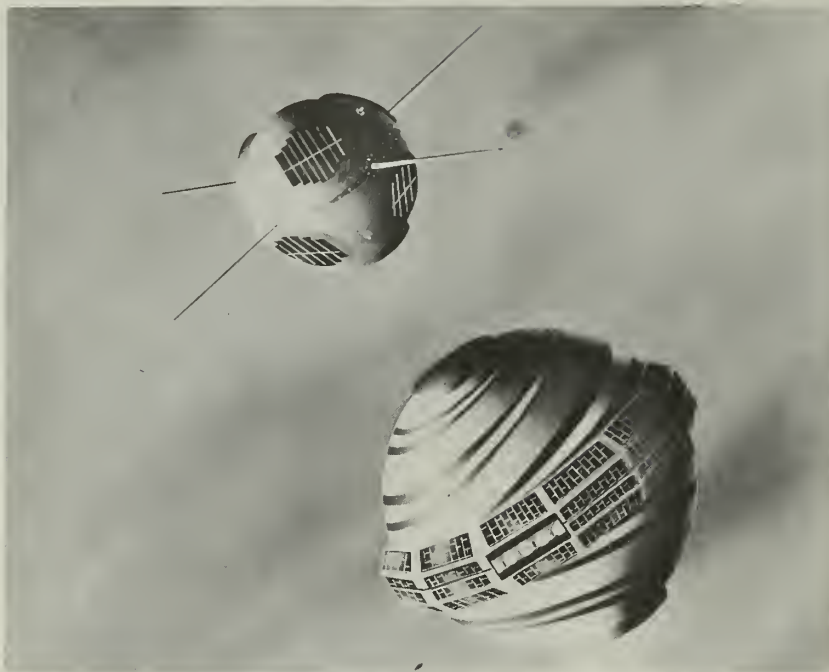
In one of the shots you can see *uss Baya's* shark snout.—R. H. Womeldorf, YNC (SS), USN.

• Well, here we go around again. Thanks for the photos—they gave us a nostalgic twinge. You have a long memory. The chief who wrote to us about seeing this nest of ships sent his letter way back in 1956. We won't stick our necks out, but let's see if someone else can beat THIS record.—ED.



WHO'S BROODING NOW—Sub tender USS *Howard W. Gilmore* (AS 16) is shown here in Subic Bay in mid-1945 with king-size nest of ships alongside.





BYE NOW—Naval Research Laboratory's solar radiation-measuring satellite is shown in drawing after release from satellite with which it rode into orbit.

Obligated Service for B School

SIR: About 15 days before I reenlisted in July last year, I submitted a request for Class B yeoman school under the reenlistment incentive program as explained in the *Enlisted Transfer Manual* (Chapter 12, paragraph 12.8).

I knew I wouldn't receive orders for the school before I reenlisted, but since I would reenlist anyway, this wasn't important.

My orders for school came back for the October class. I was told at that time, however, that I must extend my enlistment for one year to meet the obligated service requirement for the school. I was unable to contest the decision then and signed the extension.

The basis on which the personnel officer made his decision was that under this incentive plan a man would normally have a set of orders in his hand at the time he reenlisted for six years.

Is there any reason why a man with five years' and eight months' obligated service should have to extend for another year to attend a B school which normally requires only 18 months' obligated service? If not, how can I have the extension canceled?—G.W.E., YN2, USN.

• In your particular case, it wasn't necessary to extend your enlistment. As you reenlisted on board your duty station and requested a school as a reenlistment incentive—regardless of the length of the school—you were obligated to reenlist for only four years.

The only persons who are bound by the different length schools are those

who reenlist at a recruiting station. In that case, a man must reenlist for four years to get a school of 19 weeks or less, and for six years for schools of longer duration.

If you want the extension canceled, you must submit a letter to the Chief of Naval Personnel (Pers B222)—via chain of command, of course.—Ed.

Postal Clerk from Yeoman

SIR: Somehow I failed to get the word about the new Postal Clerk rating in time to submit my application to the Chief of Naval Personnel as specified in BuPers Inst. 1440.26.

I am a former teleman. I have had quite a bit of experience as a Navy mail clerk, and I know I could do a much

better job for the Navy if I were a Postal Clerk.

Is there any way that I can get my rating changed to PC now that I have missed the August selection?—C.R.D., YN2, USN.

• You missed an opportunity when you failed to submit your application to BuPers before the 25 August deadline set in BuPers Inst. 1440.26. A selection board was convened late in August that picked a nucleus for the new PC rating. Men selected by this board will be changed to PC, rate for rate, without taking an examination.

To change your rating now, submit your request in accordance with BuPers Inst. 1440.5C—this is the regular change of rating instruction. Under this instruction, you will be required to complete the necessary training courses (they will be published soon) and pass the service-wide examination.—Ed.

From BM to NW

SIR: I am a BM2 with more than 11 years' active duty in the USNR and USNR TAR program. I am very much interested in changing my rating from BM to NW, but have been unable to find any information regarding my eligibility for making such a change.

My question is—can I apply for change of rating, and if so, what is the procedure. I am at present in the TAR program.—L.R.L., BM2, USNR.

• As a TAR, you will be eligible to enlist in the Regular Navy at the expiration of your Naval Reserve enlistment.

Immediately before that time, you could request assignment to the NW Class "A" School before transfer to a sea billet.

Here are the eligibility requirements for Class A instruction aimed at preparing personnel for change in rating, as contained in BuPers Instruction 1440.18B:

Must be a volunteer for one of the ratings to which "changes to" are desired.

Must be in a source rating, that is, one of the overcrowded ratings.

Must meet obligated service requirements.

Must meet test score requirements.

Must be recommended by CO.

Must meet security clearance requirements of school concerned.

Must have less than 14 years' active Naval service at time of submission of request for school.

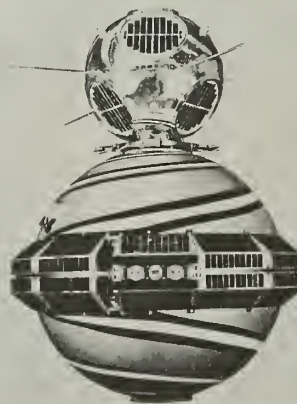
In the case of Nuclear Weaponsman Class "A" School, you must:

Be in pay grade E-4 or E-5 in one of the source ratings.

Have at least 36 months' obligated service remaining at the time your request for school is submitted.

Have a combined ARI/MECH score of at least 105.

Have normal color perception.



TWO IN ONE—Navy's solar radiation measurement satellite will ride 'piggyback' on transit 2A satellite.

Personnel in pay grades E-4 and E-5 are changed in rating in equal pay grade upon successful completion of the course of instruction.

In the event you plan to enlist in the Regular Navy, you should utilize the time remaining before the expiration of your current Naval Reserve enlistment to prepare yourself for qualifying for the change in rating you desire. Toward that end, you might try studying the BuPers Publication "Training Publications for Advancement in Rating" (NavPers 10052-G) of March 1959.

This publication is in the library at your Reserve Training Center, and contains information on available study guides.

Let's suppose, however, that for one reason or another, you could not qualify for NW Class A School. This would not mean that a change in rating to NW was necessarily barred to you. It would mean that the change would have to be accomplished through your own efforts by means of the appropriate training courses and publications, and through successful completion of a service-wide examination for the rating requested.

To be eligible for a change of rating under those circumstances, you would have to:

Be a volunteer.

Complete the required training courses, practical factors and performance tests as outlined in the "Manual of Qualifications for Advancement in Rating" (NavPers 18068).

Be recommended by your CO.

Receive authority from the Chief of Naval Personnel to compete in a service-wide examination for the rating requested.

Satisfactorily complete the service-wide examination.

Be authorized by the Chief of Naval

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *uss California* (BB 44) — The second reunion will be held in St. Louis, Mo., during the third week of June 1961. For further details, write to Harold D. Bean, Box 5, Sorento, Ill.

• *uss Leedstown* (AP 73) — The 11th annual reunion is scheduled for 12 November in New York City. For more information, write to Frank A. Wiseman, 104 West 83rd St., New

York 24, N.Y.

• *uss New York* (BB 34) — A reunion of those who served on board during the period 1914-1945 is being planned. For details, write to Bernard J. Grimshaw, BM3, usn, *uss Colorado* (AGG 11), FPO, San Francisco, Calif.

• *uss Platte* (AO 24) — A reunion of those who served from 1946-1947 is being planned. Those interested may write to Raymond F. Wright, 60 Grandview Ave., Watertown, Conn.

• *NAS Squantum*, Mass. — All officers who served at the naval air station from 7 Dec 1941 through 1946 who are interested in holding a reunion in Boston during September 1961 may write to Herbert E. Tuttle, Jr., 88 Eustis Ave., Newport, R.I.

Personnel, through the regular Naval Examining Center announcement letters, to change your rating.

Whichever course you choose we wish you good luck in your campaign to become one of the Navy's Nuclear Weaponsmen.—Ed.

Transferring to Fleet Reserve

SIR: I plan to transfer to the Fleet Reserve some time this year, but there is one slight hitch.

I reported aboard my present duty station in February this year, and the personnel office tells me that according to BuPers Inst. 1830.1 (formerly 1813.3A), I will have to do one year aboard before I can transfer to the Fleet Reserve.

I would be happy to do that, but there is still one hitch, I will have completed 20 years' service on 12 November, and my current enlistment expires on 16 November. What about the last three

months of my year on board? Can I reenlist and at the same time put in my papers to get out in February, or will I be involuntarily extended for three months to complete my one year on board?

It seems to me that it would be less trouble for the Navy just to let me go into the Fleet Reserve at the end of my enlistment and forget about that last three months.—J.B.G., BMCS, usn.

• *Bon voyage, chief. You can transfer to the Fleet Reserve at the end of your enlistment.*

BuPers Inst. 1830.1, which requires one year on board a station before a Navyman can go into Fleet Reserve, doesn't apply in your case. During peacetime your transfer to the Fleet Reserve may not be involuntarily deferred beyond the normal expiration of enlistment. Possibly the Navy figures you will have enough paper work to do preparing for the Big Day without adding more to it.—Ed.

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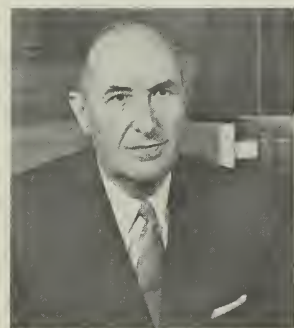
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NAVAL RECIPE—The right combination of men, ships and administration keeps the U.S. Navy the best on the seas.

WHAT IT TAKES

THE NAVY IS A BIG OUTFIT and has a lot of jobs to do. It follows that, to accomplish its missions with as little confusion as possible requires careful planning and a delicate division of labor. One of the reasons for its success is based upon its organizational structure as it



SecNav Franko

has evolved through the years. Here's a brief summary of that structure, based upon General Orders 5 and 19. You'll find a more complete picture on the following pages.

To begin with, the entire Navy, ashore and afloat, is the *Department of the Navy*, or *Naval Establishment*. Don't confuse this with the *Navy Department*, which is something else again.) It in-

cludes all active and Reserve personnel, men and women, and the Marine Corps. The Department of the Navy has three parts:

- The Navy Department.
- The Shore Establishment.
- The Operating Forces.

In other words, the Department of the Navy is the whole naval establishment; the Navy Department is the headquarters of that establishment. The Navy Department and the *Shore Establishment* support the operating forces.

THE NAVY DEPARTMENT, which has its headquarters in Washington, D.C., is made up of the bureaus, boards and offices of the Navy, headquarters of the U.S. Marine Corps, and headquarters of the U.S. Coast Guard when that organization is assigned to the Navy. No part of the Department carries on its duties independently. All are linked together in a logical chain of command, as demonstrated on the following pages.

THE SHORE ESTABLISHMENT includes all activities of the naval establishment not assigned to the operating forces and not a part of the Navy Department.

THE OPERATING FORCES consist of the Fleets, sea-going forces, sea frontier forces, district forces, Fleet

Marine Forces, and such shore activities of the Navy, and of other forces and activities as may be assigned to the Operating Forces by the President or the Secretary of the Navy.

THE SECRETARY OF THE NAVY (SecNav) is the head of the naval establishment, appointed by the President and approved by the Senate. He directs and controls the Navy by establishing broad policies and regulations.

A civilian, he administers the Naval Establishment as one of the three military departments in the Department of Defense and is responsible to the Secretary of Defense and the President for the supervision of all naval matters.

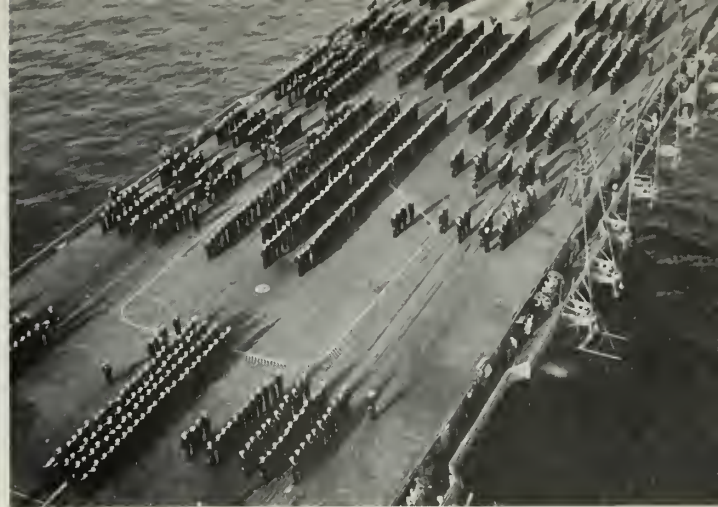
SecNav's civilian assistants form what might be called the business organization of the Navy Department. At present, they consist of an *Undersecretary of the Navy* who, in turn, is aided by three *Assistant Secretaries*.

The Undersecretary is responsible for the supervision and coordination of the work of the other civilian executive assistants and collaboration with the Chief of Naval Operations who, as the top ranking officer in the Navy, is the military authority for the naval establishment. The Assistant Secretaries are responsible for: (1) Personnel and Reserve forces; (2) Material; and (3) Research and Development.

THE CHIEF OF NAVAL OPERATIONS, a four-star admiral, is a member of the Joint Chiefs of Staff and is the naval adviser to the President, the Secretary of Defense, and the Secretary of the Navy. He plans, forecasts and determines the requirements of the Operating Forces for equipment, material, personnel and supporting services, and coordinates and directs the efforts of the bureaus and offices.

To accomplish all this, he is assisted by a *Vice Chief of Naval Operations* (VCNO), six *Deputy Chiefs* (DCNOs), three *Assistant Chiefs* (ACNOs), the *ASW Readiness Executive*, the *Naval Inspector General* and the *Director, Long Range Objectives Group*. The functions of his assistants are outlined in the accompanying illustration.

The *Commandant of the Marine Corps* is the head of the Marine Corps, which has its own recruit training,



ORGANIZATIONAL structure of the Department of the Navy helps keep this large establishment running ship shape.

TO RUN A NAVY

schools, camps, bases, equipment and supplies. However, the Corps makes use of Navy doctors, dentists, hospital and dental corpsmen, nurses and chaplains. Although they operate on the land, the sea, and in the air, their specialty is in amphibious warfare. They also provide sentries and guards for the larger Navy ships and for some shore installations.

THE BUREAUS AND OFFICES assist the Secretary of the Navy, his assistants and the Chief of Naval Operations on technical matters. Here, very briefly, is a description of the mission of each one:

- *The Bureau of Naval Personnel* procures, trains and distributes the officer and enlisted personnel of the Navy. It supervises promotion, discipline and welfare of naval personnel and operates field personnel establishments.

- *The Bureau of Ships* designs, constructs, procures and maintains ships and small craft, radio, sound and other equipment. This Bureau operates several experimental laboratories and is responsible for the upkeep and operation of the naval shipyards.

- *The Bureau of Medicine and Surgery* maintains the health of the Navy and cares for its sick, wounded and injured. It operates hospitals, dispensaries, clinics and laboratories and trains the personnel of the Medical Department.

- *The Bureau of Supplies and Accounts* procures, stores and issues supplies, provisions, clothing, fuel and such other material as the technical bureaus do not procure directly. It keeps the property and money accounts of the Navy and pays vendor invoices and Navy payrolls.

- *The Bureau of Yards and Docks* designs, constructs and maintains public works and public utilities at shore establishments, both continental and at outlying or advanced bases. This Bureau also trains, organizes and maintains the Construction Battalions (Seabees).

- *The Bureau of Naval Weapons* (formed through the consolidation of the Bureaus of Ordnance and Aeronautics) develops and makes operational to the combat forces new and improved missiles, aircraft, weapons systems and ordnance components.

The services of all these bureaus and offices are directed toward the two other components of the Naval Establishment—the Operating Forces and the Shore Establishment.

- *The Operating Forces* are composed, briefly, of several fleets (active and reserve) seagoing forces, sea frontier forces, district forces, Military Sea Transportation Service (MSTS), Fleet Logistic Air Wings, Fleet Marine Forces, and their assigned shore activities. The broad responsibility of fulfilling the Navy's role in support of fundamental national policies and interests throughout the world rests on the Operating Forces.



CNO Burke

Hence, both the Navy Department itself and the Shore Establishment exist for the purpose of supporting the Operating Forces.

- *The Shore Establishment* comprises the field activities of the Navy Department ashore and includes all such activities not assigned to the Operating Forces. These are the activities distributed throughout the U.S. and outlying territories for the purpose of maintaining, supplying, equipping, repairing, overhauling and rendering similar services for the Operating Forces.

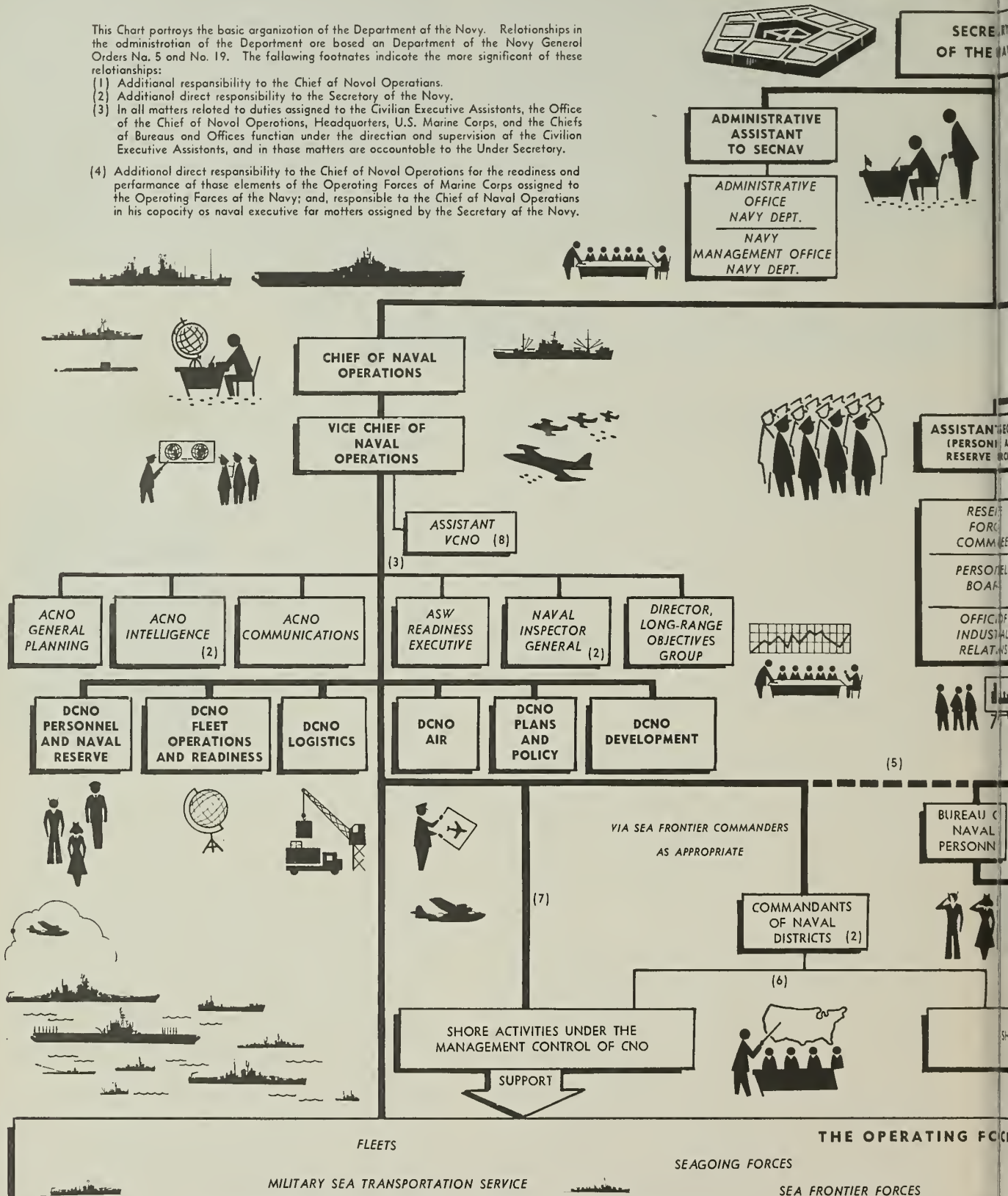
The activities which make up the Shore Establishment are distributed at strategic points along our coastal regions where they may best serve the needs of the Operating Forces. However, many activities in which such close relationship is not essential, such as air, ordnance, procurement and supply, personnel and special service activities are distributed at various points within the continental U.S. and the territories.

Military command of the Shore Establishment stems from CNO and is exercised through the Sea Frontier Commanders and the District Commandants, the Chief of Naval Air Training and the Commandant of the Marine Corps. For organization chart, turn page.

DEPARTMENT

This Chart portrays the basic organization of the Department of the Navy. Relationships in the administration of the Department are based on Department of the Navy General Orders No. 5 and No. 19. The following footnotes indicate the more significant of these relationships:

- (1) Additional responsibility to the Chief of Naval Operations.
- (2) Additional direct responsibility to the Secretary of the Navy.
- (3) In all matters related to duties assigned to the Civilian Executive Assistants, the Office of the Chief of Naval Operations, Headquarters, U.S. Marine Corps, and the Chiefs of Bureaus and Offices function under the direction and supervision of the Civilian Executive Assistants, and in those matters are accountable to the Under Secretary.
- (4) Additional direct responsibility to the Chief of Naval Operations for the readiness and performance of those elements of the Operating Forces of Marine Corps assigned to the Operating Forces of the Navy; and, responsible to the Chief of Naval Operations in his capacity as naval executive for matters assigned by the Secretary of the Navy.



OF THE NAVY

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OFFICE OF
LEGISLATIVE AFFAIRS

(5) The Chief of Naval Operations plans, forecasts, and determines the requirements of the Operating Forces of the Navy for equipment, material, personnel, and supporting services, and coordinates and directs the efforts of the bureaus and offices (headed by Naval Technical Assistants) as may be necessary to effectuate availability and distribution of these requirements.

(6) For purposes of military command.

(7) For purposes of management control.

(B) Handles affairs of District Commandants in the Office of the Chief of Naval Operations and carries out administrative duties for the Chief of Naval Operations.



UNDER SECRETARY
OF THE
NAVY



COMMANDANT OF
THE MARINE
CORPS (4)

ASSISTANT SECNAV
(MATERIAL)

ASSISTANT SECNAV
(RESEARCH AND
DEVELOPMENT)

ASSISTANT
COMMANDANT
MARINE CORPS

MATERIAL
COMMITTEE

RESEARCH
AND DEVELOPMENT
COMMITTEE

EXECUTIVE
COMMITTEE

OFFICE OF
COMPTROLLER (5)

OFFICE OF
JUDGE ADVOCATE
GENERAL (5)

OFFICE OF
GENERAL COUNSEL

OFFICE OF
ANALYSIS
AND REVIEW

OFFICE OF
NAVAL PETROLEUM
AND OIL SHALE RESERVES



FACILITIES
COMMITTEE

OFFICE OF
NAVAL
MATERIAL (5)

OFFICE OF
NAVAL
RESEARCH (5)



BUREAU OF
MEDICINE AND
SURGERY

BUREAU OF
SHIPS

BUREAU OF
NAVAL
WEAPONS

BUREAU OF
SUPPLIES AND
ACCOUNTS

BUREAU OF
YARDS AND
DOCKS

HEADQUARTERS
U.S. MARINE
CORPS (3)



SHORE ACTIVITIES UNDER THE MANAGEMENT CONTROL OF THE BUREAUS AND OFFICES

SUPPORTING
ESTABLISHMENT

FORCES NOT
OTHERWISE
ASSIGNED

SUPPORT

SUPPORT

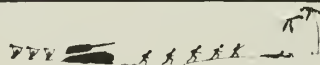
FORCES OF THE NAVY

OTHER ASSIGNED MARINE FORCES

FLEET MARINE FORCES

DISTRICT FORCES

ASSIGNED SHORE ACTIVITIES



October 1960

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



ICE-BOUND—Navy icebreaker, USS *Glacier* (AGB 4) breaks up the frozen sea around Danish *Kista Dan*, carrying members of Fuchs' Antarctic expedition.

Life-Saving Cucumbers

Studies currently being conducted under the sponsorship of the Office of Naval Research may lead to increased safety for skin divers, survivors of shipwrecks and aircraft accidents, rescue parties and marine salvage workers.

Basically the studies involve investigation of a toxin called holothurin, which may help protect swimmers against carnivorous and noxious marine animals. Holothurin is secreted by creatures known as "sea cucumbers," and protects these animals from their enemies.

In addition to exploring possible uses of holothurin in repelling dangerous marine animals, researchers hope to examine the apparent relationship of the sea cucumber to the poisonous sea urchin. Breakdown of the chemical composition of poisons produced by these creatures could pave the way for the development of antidotes.

Other facets of the studies have shown that holothurin also possesses powerful nerve-blocking properties, and increases the clotting time of blood. It may lead to possible medical applications of the substance.

Shipbuilding in Fiscal '61

The Navy's fiscal 1961 shipbuilding plans add up to 42 new ships, ranging from a conventionally powered *Forrestal* class attack aircraft carrier to two large harbor tugs. In addition, 14 aged destroyers and an auxiliary submarine will have some years added to their seagoing lives through the FRAM (Fleet Rehabilitation and Modernization) program.

A few of the new ships will represent radically new and different concepts and designs, while the more conventional types will feature the latest design and much new equipment, plus added firepower.

Slated to begin building during the '61 program are: an attack aircraft carrier (CVA); an amphibious transport dock (LPD); a fast combat support ship (AOE); a combat store ship (AFS); an oceanographic research ship (AGOR); an escort research ship (AG); a nuclear-powered attack submarine (SSN); an auxiliary deep-diving submarine (AGSS); five nuclear-powered Fleet ballistic missile submarines (SSBN); three guided missile frigates (DLG); two guided missile destroyers (DDG); two escort vessels (DE); two large harbor tugs (YTB); and 20 landing craft, mechanized (LCM 6).

Two new developments are the fast combat support ship (AOE) and combat store ship (AFS), both of which will combine functions now being performed by several types of ships.

The AOE, for example, will be part AO, part AE, and part AK. Carrying petroleum products, ammunition and provisions, and able to off-load those items rapidly from both sides of the ship simultaneously, she's being designed to operate as a part of today's high-speed task forces.

The AFS will combine the replenishment facilities of the present AKA, AKS and AVS. She will carry the same provisions in lesser quantities than the ships she replaces. She will also feature cargo-carrying helicopters to help speed up movement of supplies.

As for the other planned additions to the Fleet, some of the outstanding features will include the following:

YESTERDAY'S NAVY



On 1 Oct 1781 CAPT James Lawrence, who made the words, "Don't give up the ship" famous, was born in Burlington, N. J. On 6 Oct 1943 the sea battle of Vella Lavella was fought in the Solomons. On 10 Oct 1845 the U.S. Naval Academy was founded at Annapolis, Md. On 19 Oct 1917 the armed guard of the American steamer *J. L. Luckenbach* fought a four-hour action against a German submarine. On 21 Oct 1797 USS *Constitution* was launched at Boston, Mass. On 26 Oct 1922 LCDR G. DeC. Chevalier made the first landing aboard the carrier, USS *Langley* while underway.

- DDGs will carry a *Tartar* missile battery, long range sonar, an ASW rocket launcher, (ASROC), and two ASW torpedo launchers. This array of firepower is being designed to make these ships equally effective against air, submarine and surface threats.

- The LPD is being built to replace the attack transport and cargo ship. It will carry six helicopters, one large utility landing craft, and three personnel landing craft. It will be possible to launch both the helicopters and landing craft either while the ship is underway or stopped.

- The DE's are being loaded up to provide increased ASW capabilities. They will employ bow-mounted long range sonar, drone anti-submarine helicopters, (DASH), ASROC, and ASW torpedo launchers.

- The DLG's size, speed, endurance and advanced sea-keeping qualities will enable them to operate effectively under even the most extreme weather conditions. They too will be armed with *Terrier*, ASROC, and other ASW weapons.

Two of the new ships will be experimental models. The AGSS will be a deep-diving submarine which will be used in the development of hull structures, sonar equipment and weapon systems for combatant submarines of the future. It will also serve as a deep weapon impact target for ASW forces.

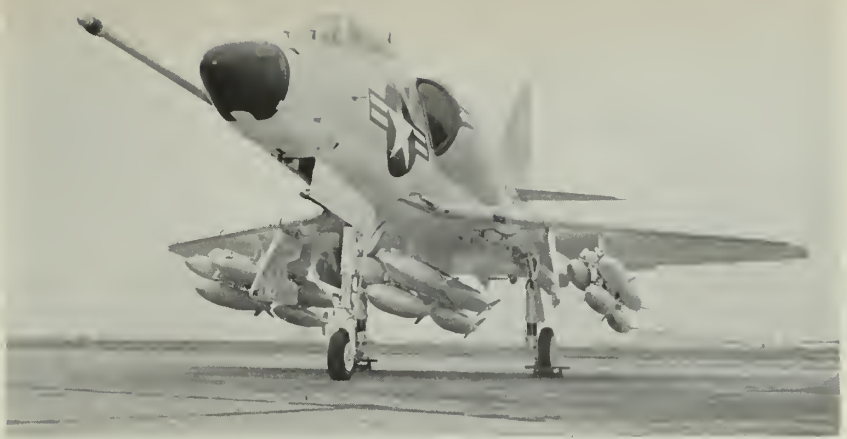
The AG will be an experimental hull of advanced hydro-dynamic and propulsion design. Experiments with her are expected to provide data which will help determine ultimate configuration for mounting sonar equipment. She will be equipped with counter rotating propellers mounted in a nacelle, which will isolate propeller noise.

It's 600 Million Million Miles

The Navy plans to build a 60-inch reflector telescope of advanced design at the Naval Observatory Station five miles west of Flagstaff, Ariz. It will be used to aid in further basic research in astrometry.

First large reflector telescope designed expressly for astrometric work, it will be constructed at an elevation of 7600 feet.

Astrometry is the branch of astronomy which deals with measurement of celestial bodies, especially in relation to their position and movements. With the new telescope,



RACKED OUT—Navy's lightweight A4D Skyhawk can now join the heavy-weight class thanks to this multiple bomb rack adapter that increases payload.

Naval Observatory astronomers will be able to determine the distances and motions of stars as faint as the 18th magnitude up to 100 light years, or some 600 million million miles, from the solar system.

Quartz has been selected for the mirror system because of that material's advanced optical stability. The 60-inch mirror will be nearly double the size of any quartz mirror yet manufactured. In addition, a secondary 35-inch quartz mirror will be incorporated in the telescope's design. An improved stellar tracking system will furnish a high degree of dependability and smooth movement, and other new engineering techniques will provide the telescope with a supporting structure with the extreme rigidity required for high

precision observations.

A three-story circular building will house the new 'scope. Laboratory space for photographic work and the testing of optics and electronic equipment will be included. It will be located near the station's 40-inch telescope, which is now being used for work in astrophysics and in the study of comets.

In addition to basic research in positional astronomy, the new telescope will enable Observatory scientists to observe deep-space probes and distant artificial satellites. It will also be possible to use it for visual and photographic observations of binary and multiple star systems, photoelectric and spectographic studies of extremely faint objects, and determination of stellar distances.



ALL ABOARD—Careful hands ease new torpedo Astor into submarine for testing. Astor is capable of destroying subs as well as surface ships.



ASROC missile blasts from launcher aboard USS Norfolk (DL 1) while testing the ASW weapon in Fla. waters.

Amphibious Midshipmen

Five hundred fifty NROTC midshipmen from 31 colleges and universities are back in their classes after spending three weeks late this past summer learning amphibious operations first hand.

Midshipmen receive their amphibious indoctrination between their sophomore and junior years. They reported to the Pacific Fleet Amphibious Training Command at Coronado, Calif., soon after completing a three-week Naval Aviation Indoctrination Course at NAS Corpus Christi, Tex.

This year's training schedule included both theoretical amphibious indoctrination and practical demonstrations ashore and afloat. At Coronado the midshipmen were organized into one battalion of six companies, with Marine Corps officers assigned as company commanders.

During their first week of training the middies witnessed a full scale amphibious assault at Silver Strand. Navy frogmen from Underwater Demolition Team 11 and Marine reconnaissance personnel paved the way, then a battalion landing team of some 1200 Marines from Camp Pendleton swarmed ashore from ships and units of Amphibious Squadron Five.

In just two hours, and nine separate assault waves, aggressor forces

were captured, and the beachhead secured.

Later each midshipman received individual instruction in the various arts of amphibious warfare, including boat handling, water safety, beach intelligence, wet and dry net handling, and the planning and execution of an amphibious operation.

The second week of the course saw the midshipmen at sea in the helicopter assault ship USS *Princeton* (LPH 5). Aboard *Princeton* they were checked out in a relatively new amphibious technique—vertical envelopment. Combat-equipped and divided into "Heli-teams," each with a Marine Corps instructor, they were whirled far behind enemy lines to try out the vertical envelopment (or, attack from above and behind) system for themselves.

Then it was back to sea again, as, embarked in Amphibious Force ships, the middies had front-row seats during a shore-bombardment exercise conducted by destroyers near San Clemente Island.

For their final exam the third week the midshipmen hit the beach at Camp Pendleton. Plenty of realism was provided by controlled demolition charges exploded on the beach all around them, while jets from MCAS El Toro made bombing and strafing runs on enemy defense positions.

Training over, the fledgling officers left for their homes and a few days' leave. They reported to their respective units in early September.

Tug Rescues Sailing Ship

The Fleet tug USS *Paiute* (ATF 159) bucked high seas and 40-mile winds while rescuing a crippled sailing vessel, *Annyah*, in the storm-tossed Atlantic some 35 miles southeast of Rota, Spain.

Paiute was underway to Lisbon, Portugal, for a two-day visit before returning to her home port, Mayport, Fla., when she received word that *Annyah* was wallowing helplessly, four sails and some standing rigging torn away, and back stays broken.

An aircraft from the U.S. Naval Base at Rota originally sighted the distressed three-masted schooner, and directed *Paiute* to her. Another plane, a P2V *Neptune* attached to Patrol Squadron Five from Jacksonville, Fla., temporarily based at Rota took over surveillance of *Annyah* until *Paiute* took her in tow.

Latest Guided Missile Frigate

One of the newest members of the Fleet is USS *Coontz*, a guided missile frigate that recently joined the Fleet at the Puget Sound Naval Shipyard, Bremerton, Washington.

Coontz (DLG 9) has two distinctions. It is the first DLG built on the West Coast. And it is the prototype ship for its class of 10 DLGs. USS *Farragut* (DLG 6) was, however, the first ship of the *Coontz* class to be launched.

Featuring the all-weather, surface-to-air guided missile *Terrier* as its main armament, *Coontz* also has two 5-inch, rapid-fire single mounts forward, two 3-inch twin mounts port and starboard, and the latest types of ASW and fire control gear.

In size, *Coontz* is in the destroyer-leader or large frigate range. With a 512-foot length and 50-foot beam, the 5500-ton ship can develop 85,000 horsepower, giving her a speed in excess of 30 knots.

A notable innovation in the construction of *Coontz* and her sister DLGs is the large amount of aluminum used in the ships' superstructures—an estimated 560,000 pounds for each ship.



SUB HUNTER—ASROC missile, new ASW weapon, is loaded in launcher. After firing, homing torpedo separates from propelling rocket and is lowered into sea by parachute.

Sub Gets FRAM Treatment

The guppy submarine *uss Tiru* (SS 416) has been FRAMed, and old-time crew members would hardly recognize her now. They'd enjoy serving aboard her though—she's got more elbow-room.

Tiru, first submarine to get the FRAM (Fleet Rehabilitation and Modernization) treatment, underwent quite a transformation at the Pearl Harbor Naval Shipyard. Shipyard workers cut her completely in two amidships, the forward section was jacked ahead, and a new 12-foot section was added to the pressure hull. The conning tower was extended by five feet to provide for an attack center. All operating machinery was overhauled.

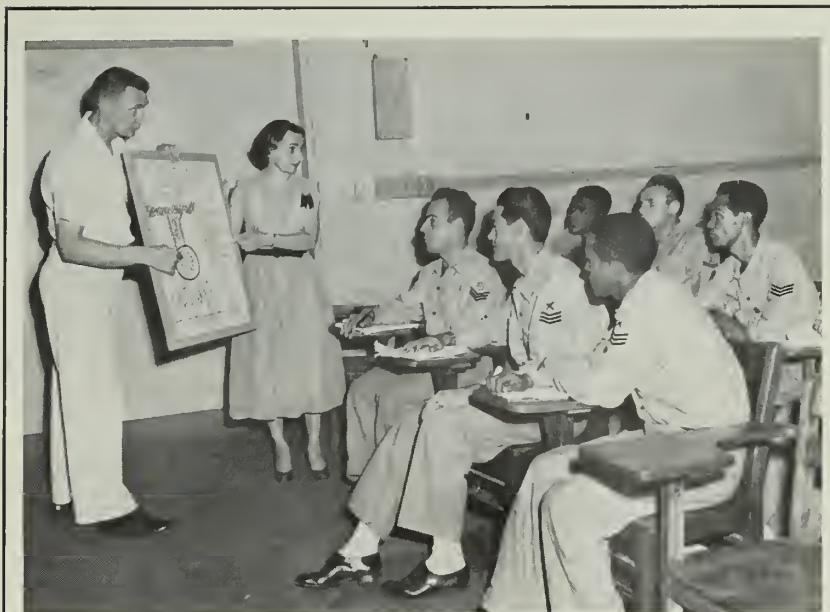
Lengthening *Tiru* has provided the added space needed to house the modern equipment (advanced electronic and communications systems) and new weapons available to today's submarines. There's more habitability (living space) too, and greatly increased fuel capacity. In addition, when equipment was placed back aboard after completion of the overhaul, it was done according to the "human engineering" concept—in other words, it was so located to be most easily accessible to the operators who use it.

Much of *Tiru's* changed appearance is a result of her brand new, "non-corrodible" laminated glass plastic fairwater and superstructure. Its plastic construction combats the submariners' toughest preservation problem—corrosion of the inaccessible superstructure.

Shipyard designers took advantage of increased stability afforded by the added 12 feet of hull to put the bridge high in the fairwater. They built a trunk leading to it from the conning tower, and raised the main induction, giving *Tiru* greatly increased sea-keeping qualities.

Since leaving the shipyard, *Tiru* has been testing and evaluating its increased operating capabilities. Eventually the Navy hopes to give some 23 old-style submarines this "new look."

The interior of *Tiru* takes on an appearance as modern as the exterior. The decks have been covered with various patterns of vinyl tile similar to that found in recreation rooms of modern homes. The bulkheads have been given the new look by use of varied color schemes to enhance living. Unlike other ships in



HOME TEAM—John S. Shelley, DC1, USN, is aided by his wife, Rose, as she interprets for Brazilian Navy students at DC school at Newport, R.I.

Husband-and-Wife Teaching Combo

When 10 students from the Brazilian Navy arrived for damage control training at Newport's Fleet Training Center without an interpreter, the Officer-in-Charge of the Damage Control School did some improvising.

After a search of the Naval Base failed to turn up a Portuguese interpreter, LT Ralph Motika called on the wife of one of his damage control instructors to fill the breach, and Mrs. Rose Selley, wife of John S. Selley, DC1, assisted her husband in teaching the Brazilian student class.

Mrs. Selley sat in on the lectures on basic damage control given by her husband, translating to Portuguese the instructions which her husband gives in English.

Mrs. Selley has found her work most interesting, and at times exasperating. Although she has had no formal schooling in Portuguese, her

parents were from Portugal and she learned the language at home. "The Brazilians have a somewhat different dialect," she said, "and it caused confusion at times, but the boys seem to understand me very well."

To LT Motika, the progress made by the Brazilian students has been highly satisfying. "The sailors have shown an amazing comprehension of the subject matter, despite the fact that they haven't had much previous formal training in our method of damage control," he said. "Mrs. Selley has done a wonderful job."

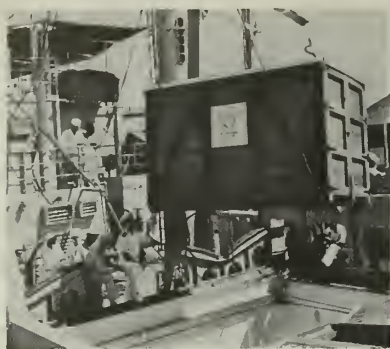
The students felt the same way. They were eager and attentive in class, and paid close attention.

After two weeks of damage control training, the Brazilian sailors joined their new ships in Boston. The ships, recently turned over to the Brazilian Navy by the U.S., are former *uss Cardinal* (MSCO 4) and *Egret* (MSCO 46).

the guppy class, *Tiru* has been provided with a separate Chiefs' Quarters, steering station in Control Room instead of Conning Tower, new and improved Radio and Sonar Room, additional repair parts stowage and new electronics and fire control system equalled by no other submarine except the latest new submarines under construction.

The hull insert provided space to install new electronics which gives *Tiru* the impact of an ASW Hunter-Killer as well as an attack submarine.

In future submarines in the FRAM program, the Bureau of Ships has even more surprises in the making. It is hoped to provide quiet snorkeling capabilities plus increased air-conditioning for these submarines.

TREASURE SHIP—USS *Okanogan* loads Thai art. Rt.: Bust given close look.

Here's a New Style "Treasure Ship"

A PhibPac attack transport is getting to be known as the Navy's "treasure ship." *uss Okanogan* (APA 220) has returned to the U.S. with national art treasures from Thailand and from Viet-Nam. Last year this same ship had delivered several million dollars' worth of Korean art treasures to Hawaii.

Putting into Long Beach (Calif.), her home port, after six months in the Far East, *Okanogan* had nearly 800 art objects in her holds. The monetary value of the exhibit is impossible to determine, for the art items represent all types and periods of Thai (Siamese) and Viet-Name art, and few of the objects could be replaced. One estimate for the Thai exhibit: \$40 million.

The first art pick-up was made at Bangkok, Thailand. Taken aboard were bronze and stone Buddhas, ceramics, paintings, wood carvings, gold and jewelry, furniture, ceremonial objects and other items of artistic significance.

An 18-month tour of the U.S. is scheduled for the Thai art. It will be shown first at Indiana University, and then at museums in New York: Boston, Mass.; Toledo, Ohio; San Francisco, Calif.; Los Angeles, Calif.; and Honolulu, Hawaii.

Following her visit to Bangkok, *Okanogan* headed for Saigon, Viet-Nam. There she took aboard prehistoric objects, metal items of the bronze age, terra cotta works, statues of Hindu and Buddhist deities, jewels and objects of worship, musical instruments, paintings of contemporary artists, lacquer works, and objects made of gold, silver and ivory.

The exhibit of Viet-Name art treasures will be officially opened this fall at the Smithsonian Institution, Washington, D.C. Then it will be shown at museums in Baltimore, Md.; Worcester, Mass.; Cleveland, Ohio; Philadelphia, Pa.; St. Louis, Mo.; Portland, Ore.; and San Francisco, Los Angeles, and San Diego, Calif.



NATIVE DANCERS perform for Navymen bringing art treasures for U.S. tour.

Notes on Australian Visit

IT'S ALWAYS NICE to go visiting and when you're made to feel at home, it is even more enjoyable. Using these standards, some 4000 officers and enlisted men aboard nine U.S. Navy ships did have an enjoyable 17-day visit in Australia earlier this year.

These men arrived aboard the *Terrier*-equipped guided missile cruiser *uss Canberra* (CAG 2); *Helena* (CA 75), equipped with the *Regulus I* missile; the nuclear-powered guided missile submarine *Halibut*, SSG(N) 587; escort destroyers *Jenkins* (DDE 447), *Taylor* (DDE 468), *O'Bannon* (DDE 450), and *Walker* (DDE 517); the amphibious force flagship *Eldorado* (AGC 11); and the Fleet oiler *Hassayampa* (AO 145).

Our friends down under were able to see the U.S. Navy's most recent developments in modern seaborne weapons. *uss Halibut* was the first nuclear-powered ship to visit Australia. Displaying its *Regulus I*, the 350-foot submarine visited Sydney and Melbourne.

The Australians, our partners in SEATO (Southeast Asia Treaty Organization) and ANZUS (Multilateral treaty between Australia, New Zealand, and United States) treaties, also witnessed their first performance of the *Terrier* missile. While most of nine visiting ships held guest cruises, the guided missile cruiser *Canberra* conducted off-shore maneuvers for its guests by launching and destroying drone targets with the *Terrier*. *Canberra* was an appropriate choice to visit this country, since it is the only U.S. warship named after a foreign city, the capital of Australia.

During the celebrations, officers and men on the visiting U.S. ships had plenty of liberty, but still took time to donate blood to local hospitals and to join the Australian ground forces on bivouac.

Similarly, thousands of Australians familiarized themselves with the U.S. Navy and Navymen as they toured and inspected the nine ships visiting their country. And then they swamped their guests with invitations to tour their cities and visit their homes.

Helena's commanding officer, Captain D. L. Kauffman, said that every man on his ship was invited into the home of some Australian family.

Although busy with parades, ban-

quets, sight-seeing tours, or appearing on local television shows, some crew members found time to go kangaroo and boar hunting. Others played baseball, basketball and golf with Australian naval and civilian teams.

Busy Year for *Canberra*

When the guided missile cruiser *uss Canberra* (CAG 2) joined the Sixth Fleet in the Mediterranean recently, it was just about a year to the day since she had ended her last deployment there. It had been a busy, busy year, during which she operated with every U.S. Fleet, and became the first guided missile cruiser to circle the globe.

After returning to the East Coast from the Med last year, *Canberra* spent the fall of 1959 operating with the Second Fleet. She then entered Norfolk Naval Shipyard for overhaul and refitting before leaving on her world cruise early in March.

Upon transitting the Panama Canal, *Canberra* became the first guided missile cruiser to enter the Pacific, where she operated for a stretch with the First Fleet off the California coast.

Next it was off for the Southwest Pacific. Crossing the equator, some 1100 of *Canberra's* crew were initiated into the Ancient Order of the Deep. Later, she fired a Terrier missile across the International Date

Line from west to east—"into yesterday."

In the Coral Sea, *Canberra's* crew held a memorial service in honor of the men who gave their lives during the World War II battle there. Upon reaching Australia the ship also participated in that country's annual victory celebration of the Coral Sea battle.

In all *Canberra* steamed some 32,000 miles and entertained more than 45,000 guests in 14 ports. One of these was Moji, Japan, sister city of *Canberra's* home port, Norfolk.

While in the Far East, *Canberra* operated with the Seventh Fleet. Her last port of call before leaving the Pacific was Cochin, India. She reentered the Med via the Suez.

Navy Judo Expert

Airman Wrobel, you see, is a judo expert, and he likes to spend a good share of his off-duty hours teaching that potent art of self-defense to fellow crew members.

How did Wrobel get that way—Black Belt holder, 13th step, just four rungs from the top in judo hierarchy—at the age of 23? Well, it all started when he was nine.

It's the age-old one of the small boy or the 97-pound weakling who gets beat up by the neighborhood bully, and vows then and there that he'll never be pushed around again.

In Wrobel's case, it started, as

we've said, when he was nine—when the South Bend, Ind., youth got worked over by a tough bunch from South Chicago. It was then Wrobel decided—I'm going to learn judo.

In 1950, when he was 13, Wrobel got a big break. He was one of a group of eight youngsters selected by a wealthy Chicago judo enthusiast for a trip to Japan, and intensive training at the hands of experts. It was there that he first acquired the Black Belt.

Now a strapping, 200-pound, six-footer, Wrobel is especially interested in three things these days—teaching judo to others; progressing through the final four steps to the highest plane of judo expertness, and learning all there is to know about judo, which is, basically, the application of anatomical knowledge in a person-to-person clash.

One thing's for sure—Don Wrobel doesn't have to worry much about being pushed around any more.

Fourth *Polaris* Sub

The first nuclear-powered submarine to be launched in the south has been commissioned as *uss Robert E. Lee*, SSB (N) 601.

Robert E. Lee, the fourth Navy submarine designed to launch the *Polaris* missile, measures 380 feet and has a displacement of 5400 tons on the surface and 6700 tons submerged.

HANDY CRAFT—Off duty Judo teacher, D. E. Wrobel, AN, USN, *USS Yorktown* (CVS 10) shows shipmate a few tricks.



Brief news items about other branches of the armed services.

THE MOST POWERFUL SUB-SURFACE MISSILE launched to date — a 450,000-pound thrust booster motor — has been blasted from an underground site by the Army at the White Sands Missile Range, N.M.

A *Nike-Zeus* missile test model was sent soaring skyward in the record-shattering blast from a new type underground launching facility.

When this anti-missile missile becomes operational, it may use underground launching sites since they will be less vulnerable to enemy attack.

The lower underground cost is possible as subsurface facilities do not require elaborate barricades and access tunnels necessary for above-ground installations.

Constant subsurface temperatures eliminate extensive air-conditioning and artificial temperature controls. Maintenance would also be simplified because upper sections of the *Zeus* could be removed and serviced without disturbing the lower sections.

★ ★ ★

THE AIR FORCE plans to add more punch to its air defense program by installing new *Bomarc-B* supersonic interceptor missiles at two Northeastern United States sites.

McGuire AFB, Fort Dix, N.J., and Otis AFB, Falmouth, Mass., are each slated to get 28 of the new longer-range interceptors and their launchers. They will supplement existing air defense facilities at the two bases, which consist of *Bomarc-A* missiles already operational.

Bomarc-A, launched by liquid-fueled boosters, has a range of more than 200 miles. *Bomarc-B*, which uses solid-fueled launch-boosters, will travel twice that far.

Both missiles are powered by ramjet engines, are ground-controlled by SAGE direction centers, and have built-in seekers for final interception.

Construction of the new launchers and facilities at both bases will begin as soon as final details of construction are worked out.

★ ★ ★

AN 1800-MILE EXPEDITION of the Greenland Ice Cap, dubbed Project "Lead Dog," is being conducted by the Army as part of an over-all program to develop



NIGHT SIGHTS—New Army infrared sniperscope can spot enemy at greater range than WW II predecessor.



WHAT'S THIS—Research aircraft of Army and USAF rides on air ground cushion until speed sends it airborne.

new techniques for transportation support operations in difficult environments.

A 30-man task force is attempting to establish two safe overland routes from the crest of the ice cap to the ice-free coast of Northeast Greenland, moving both by air and on the surface.

Project Lead Dog will cross the ice cap from Camp Tuto, near Thule, to Crown Prince Christian Land, retrace a portion of the route and then proceed straight north to Peary Land.

In both Crown Prince Christian Land and Peary Land, the party will use helicopters to attempt to locate a route from the ice sheet to the ice-free land area and then to the coast. Two weasels, one of which is equipped with an electronic crevasse detector, will explore any feasible routes to the sea which are indicated by air reconnaissance.

Lead Dog's equipment consists of six large tractors, 18 sleds, two 10-ton trailers, six wannigans (portable snow shelters), three weasels with one-ton sleds, seven rolling liquid transporters and two helicopters.

In addition to the trail-blazing activities, scientists accompanying the Army task force will make meteorological, glacial and other scientific observations.

★ ★ ★

AN ADVANCED MODEL of the *Titan* ICBM, capable of carrying a heavier load and with a greatly reduced reaction time, is being developed by the Air Force.

Known as the *Titan II*, this improved weapon is launched directly from its underground silo, only a few seconds after the order to fire is given. This *Titan* is fueled with storable liquid propellants. Materials now in use, such as liquid oxygen, must be kept in special containers at minus 300 degrees Fahrenheit to remain in a liquid state. Storable liquids will permit the new *Titan* to be fueled and kept in a ready-firing condition for long periods of time at ordinary temperatures.

In addition, *Titan II* will be directed to its target by a self-contained, all-inertial guidance system. This system cannot be jammed by any known method.

Titan II in the operational version will be SM-68B.

The present *Titan* missile, when it becomes operational next year, will be designated the SM-68.

The 98-foot *Titan* is in advanced flight testing at Cape Canaveral, and has proven its intercontinental range capabilities with five 5000-mile flights this year.

★ ★ ★

A NEW RADAR PHOTOGRAPHY SYSTEM is an important step in providing improved combat intelligence for a field army.

Enemy territory can now be photographed by planes flying behind our own lines with a new all-weather, day-and-night radar photography system that has been developed for the Army. The system is for tactical, battlefield use.

This system, which can even out-perform the human eye, is capable of separating large and small objects at great distances.

Distant objects, such as a long row of telephone poles merge when seen by the human eye. The eye's physical limitations do not allow a separation of distant objects. The Army's newly developed system overcomes both this human problem and that of previous radars by seeing closely spaced objects and ground differences clearly, whether on the horizon or nearby.

This versatile radar-photo system can probe enemy territory without flying over the hostile areas. With its side-looking operation, scanning enemy territory at right angles to the aircraft's direction of flight, it produces map-like photos for intelligence studies. This "sideways" gathering of information keeps the aircraft inside of friendly lines, where maximum protection can be provided.

This system, officially designated the AN/UPD-1, using a small antenna, gathers fine radar-map-detail by "synthesizing" side-looking antennas many times longer than the aircraft itself.

The complete airborne radar-photo system includes the airborne radar equipment in an Army L-23 aircraft and the conversion and processing equipment in a mobile ground van.

Strips of photographic maps which show the distant areas clearly without distortion due to distance can be produced in the mobile van.



IN THE MILL—Artist's drawing shows the Army Mauler Air Defense system for use against planes and missiles.



LARGE AND FAST—The B-70 bomber of the Air Force is designed to fly at three times the speed of sound.

A CONTRACT has been awarded by the Air Force for a precision trajectory measurement system for the Atlantic Missile Range.

Known as MISTRAM, the missile trajectory measurement system will be used to determine accuracy and guidance performance of missiles fired down the Atlantic Missile Range. The contract calls for the contracting organization to analyze, design, develop, produce, install and check out the new system.

★ ★ ★

COMMUNICATIONS BETWEEN SPACE SHIPS in the future may be carried on by a beam of light rather than the conventional radio.

This light beam communications system is currently under study by the Wright Air Development Division of the Air Research and Development Command.

It is believed that light beam communications will be cheaper than present systems and will feature simpler and lighter equipment for certain specialized applications.

Basically, here's how this future communications system will work:

Special equipment will collect sun rays, run them through a modulator, and direct the resulting light wave in a controlled beam to a receiver.

There the wave will be put through a detector, changed into an electrical impulse and be amplified to a speaker. Depending upon the type of equipment used, either a dot-dash (digital) message or voice transmission can be sent.

★ ★ ★

A SHUTTER SPEED OF ONE FIVE-BILLIONTH of a second is being used on a camera by Army scientists to find out what happens to explosive materials during detonation.

An argon gas bomb triggered simultaneously with the explosion being photographed serves as a flash gun for the high-speed camera.

Located at the Army's Picatinny Arsenal, Dover, N. J., the instrument, known as the Kerr camera, has made still photographs of explosion shock waves travelling as fast as five miles a second (18,000 miles an hour).

This new high-speed camera is four times faster than any other camera known to be in use at the present time.

THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

• **REENLISTING AFTER 20** — Navymen who now become eligible for transfer to the Fleet Reserve, but who want to reenlist, are no longer restricted by the selective retention plan established by the Chief of Naval Personnel in 1958.

Under the program, which was instituted to permit the orderly advancement of junior petty officers, senior personnel in certain ratings were retained only if they received specific approval of BuPers.

As the advancement opportunities improved for junior POs, more and more ratings were dropped from the restricted list.

Now BuPers Inst. 1133.12A, which established the plan, has been canceled. If you want to do 30 years, you will not be hampered by being in a crowded rating.

If, however, the Chief of Naval Personnel has denied you permission to remain on active duty, or if BuPers Inst. 1133.12A applied to you before it was canceled and you failed to request retention, you will not be allowed to remain after your obligated service ends.

Earlier information was contained in BuPers Notice 1133 of 4 Jun 1960.

• **19 AND SIX IS NOT 20**—If you want to get paid for 20 years' service when you transfer to the Fleet Reserve, it looks as though you'll have to do every day of it. Nineteen years and six months probably will not do the trick according to a recent Comptroller General decision.

SecNav Notice 1830 of 23 Aug

1960 says this decision may make it illegal to credit a fractional year of six months or more as a full year for basic pay purposes when computing retainer pay.

This does not mean that you will not be able to use constructive service or that you must do a full 20 years to transfer to the Fleet Reserve. The ruling applies only to basic pay. If the decision means what the Navy thinks it does, you'll lose about five dollars a month if you go out with 19 and one-half years' service, rather than stay for the full 20.

If you want to stay aboard for the extra few months, the Navy will let you. If you already have your authorization to transfer to the Fleet Reserve, your commanding officer can let you remain for the extra time. On the other hand, if you have applied for transfer to the Fleet Reserve, but have not received your authorization, you will be warned of the possible loss of pay before you are allowed to transfer.

A final ruling will be made later.

• **FIRE CONTROL TECHNICIAN** — In a change approved by the Secretary of the Navy, the structure of the Fire Control Technician (FT) rating has undergone considerable revision.

In the E-7 to E-9 grades FT is now a general rating.

The general service rating of FT in pay grades E-4 to E-6 has been replaced by two separate service ratings: FTM (Missile Fire Control) and FTG (Gun Fire Control). The

FTG service rating now embodies all maintenance and repair of gun fire control systems; while for those FTGs designated "SS" it embodies submarine fire control equipment. The scope of the FTM rating now includes missile fire control systems and equipment.

Maintenance and repair of surface ship underwater fire control systems is no longer in the scope of the FT rating. It has been switched over to the Sonarman (SO) rating.

Six emergency service ratings have been discontinued. They are: FTA (Automatic Directors), FTG (Missile Guidance Systems), FTM (Manually Controlled Directors), FTU (Underwater Systems), FTE (Electro-mechanical), and FTL (Integrated Systems).

• **NAVY TRAVEL INSTRUCTIONS** — Answers to questions about dislocation allowance and trailer allowances can now be found in *U.S. Navy Travel Instructions*. Although the information is basically the same as that already published by individual Instructions, it is now included in two new chapters (9 and 10) in the revised travel instructions.

According to revised Article 7008-(2), it is necessary now to receive a negative reply to a request for concurrent travel overseas before dependents may complete their travel to an alternate location in the U.S.

Also included in Change 3 to *U.S. Navy Travel Instructions* is a new Article 7060, which clarifies entitlement to travel allowance for dependents when a modification of PCS (permanent change-of-station) orders are received en route.

• **SUBMARINE OFFICERS NEEDED**—The Submarine Force will have 84 more potential submarine officers come 26 Sep 1960. On that day, 84 line ensigns and lieutenants junior



TRICK OR TREAT—Nine other Navymen are practically begging to see this copy of ALL HANDS—so pass this copy on.

grade will begin submarine school at New London, Conn.

These officers will remain in the school for about six months, after which they will most likely be assigned to a submarine operating out of New London, Norfolk, Charleston, Key West, San Diego, or Honolulu. A few may go on to nuclear power school.

With recent successes of the *Polaris* missile and with an increasing number of submarines now being constructed, even more submarine officers will be needed in the future.

To fulfill this need, classes begin at New London every three months. The Navy is looking for volunteers to attend the classes convening in mid-1961 and later.

Send your letters of application as early as possible to the Chief of Naval Personnel, via your CO.

Officers requesting submarine school must be physically qualified for submarine duty as established in the Manual for the Medical Department, Article 15-29I.

Earlier information can be found in BuPers Inst. 1520.6H, and in BuPers Notice 1520 of 21 Jul 1960.

• **E-4 AND E-5 PRO-PAY EXAMS**—If you're a second or third class petty officer, or a Navy recruiter (all pay grades,) and have been recommended for proficiency pay, circle Tuesday, 1 November on your calendar—that's the date you'll take the examination which will determine whether you will begin drawing \$30 per month extra next January 16th.

Since 70 per cent of all pro-pay authorized goes to POs 2 and 3 in the critical ratings; 15 per cent to those in pay grades E-6 and E-7 in the critical ratings, and the remaining 15 per cent to recruiters and those of all pay grades in the "outstanding effectiveness," or non-critical ratings, you're in a very good position to start making the extra money—provided you can pass the test. That doesn't mean that everybody passing the test will make pro-pay, but in most ratings, your chances are much better than fair.

On the accompanying chart ratings with pay grades marked with an "x" are eligible to compete for pro-pay in each pay grade.

Rating	E-4	E-5
AB		x
ABA, ABG, ABU	x	x
ACR	x	x
ACT	x	x

Rating	E-4	E-5
ACW	x	x
AD	x	x
ADJ, ADP, ADR	x	x
AE	x	x
AG	x	x
AK	x	x
AME, AMH, AMS	x	x
AO	x	x
AQ	x	x
AQB, AQF	x	x
AT	x	x
ATN, ATR, ATS	x	x
BM	x	x
BT	x	x
BUH, BUL, BUR	x	x
CEP, CES, CET, CEW	x	x
CMA, CMH	x	x
CS	x	x
CT	x	x
DC	x	x
DK	x	x
DM, DMF, DMI, DMM, DMS, DMT	x	x
DT, General	x	x
DT, Prosthetic	x	x
DT, Repair	x	x
EM	x	x
EN	x	x
EOH, EON	x	x
ET	x	x
ETN, ETR, ETS	x	x
FT	x	x
FTA, FTE, FTG, FTL, FTM, FTU	x	x
GM, GMA, GMM	x	x
GS	x	x
HM	x	x
IC	x	x
IM, IMI, IMO, IMW	x	x
JO	x	x
LI, LIP, LIT	x	x
MA	x	x
ML	x	x
MM	x	x
MN	x	x
MR	x	x
MU	x	x
NW	x	x
OM	x	x
PH, PHA, PHG, PHL, PHM, PHR	x	x
PM	x	x
PN, PNA, PNI, PNT	x	x
PR	x	x
PT	x	x
QM	x	x
RD	x	x
RM	x	x
SD	x	x
SFM, SFP	x	x
SH (Barber)	x	x
SH (Clerk)	x	x
SH (Cobbler)	x	x
SH (Laundry)	x	x
SH (Tailor)	x	x
SK, SKG, SKT	x	x
SM	x	x
SOA, SOG, SOS	x	x
SOO	x	x
SV	x	x
SWE, SWF	x	x
TD	x	x
TM	x	x
UTA, UTB, UTF, UTW	x	x
YN, YNM, YNS, YNT	x	x

QUIZ AWEIGH

1. At a quick glance you might think that items of the enlisted man's "blues" are all made of the same material. But there's a difference. See if you can line these up right:

Dress blue jumper
Undress blue jumper
Peacoat
Blue service cap
(flat hat)
(a) Flannel
(b) Jersey cloth
(c) Melton cloth



2. The Big Dipper, Little Dipper and Southern Cross are constellations well known to star watchers. Almost in the same league is the familiar star pattern pictured above. (During summer months it is not usually seen by observers in the northern hemisphere.) Its name is



3. For many years there were only two approved ways for an enlisted man to mark his clothing. Either he used a stencil or he used indelible ink on the clothing's label. Since March, however, the use of a stamp has been allowed as an alternate to stenciling. What is the proper size of this stamp?



4. COMFAIRHAW, COMFAIRNORFOLK, COMFAIRJAPAN are titles you often see. FAIR as used here means: (a) Forces, air; (b) Fleet aviation intelligence reserve; (c) Fleet, air.

Answers on page S6.

THE BULLETIN BOARD

Navy Inaugurates STAR Program for First-Cruise Career Men

THE NAVY HAS COME THROUGH with a new career program which will offer to career-minded men very substantial benefits.

To be known as the STAR (Selective Training And Retention) Program, it enables selected first-cruise enlisted personnel with at least one year of active duty to be discharged for immediate reenlistment in return for:

- Guaranteed assignment to Class A school of choice.
- Automatic advancement from pay grade E-3 to PO3 for those who graduate from Class A school in upper half of class.
- Guaranteed assignment to Class B school for PO3s and PO2s.
- Automatic advancement to PO2 for PO3s who graduate from Class B school.
- Reenlistment bonus.

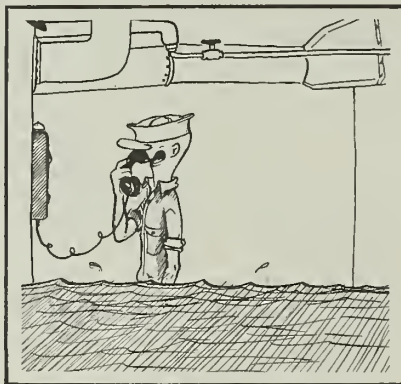
Periods of enlistment are either for four or six years. The years of the second enlistment, when added to those of the first, must total seven or more years.

The STAR Program was originated because of the degree of training needed to service and operate many of the Navy's new "weapons systems"—a degree of training so high that it has become over-costly to train non-careerists in those weapons systems. The training has, in many cases, been taking up more than half of a normal first enlistment.

On the Navy's part, the STAR Program will help assure that those who avail themselves of special training programs have enough obligated service to provide an adequate return for the Navy's investment in time and training. On the part of the STAR personnel there are, of course, the various career benefits.

"Career designated" is a term that applies to those who take part in the program. Eligible for the program are qualified personnel, both male and female, and both USN and active duty USNR, with at least one year's active naval service and less than four years' service. Taking a Convenience-of-Government dis-

All-Navy Cartoon Contest
E. L. Bennett, GM2, USN



"D.C. Central, I'd like to report a leak in compartment..."

charge in your present period of enlistment and shipping over either for four or six years (thereby incurring a total of seven or more years of active naval service) you, in short, enter the STAR Program and become *career designated*. As such, you become eligible for the various incentives, as appropriate to your particular pay grade and rating.

To be eligible you must meet the

All-Navy Cartoon Contest
H. L. Funston, BT2, USN



"Alright, who's the wise guy?"

test score requirements for the appropriate service school—"appropriate" meaning the service school in the normal path of advancement. If you are an airman, for example, you may apply only for schools for ratings to which airmen advance. You must also have served for six months in a status other than that of recruit or student. Additionally, you must be recommended by your CO for the program.

Though open to first-term personnel of all ratings, rated and non-rated alike, it is chiefly concerned with personnel *serving in, training in, or desiring training in* one of the 19 ratings listed below.

RD	FT	CT ^o	EM	AE
SO	NW	MM	IC	AG
TM	ET	MR	AT	PR
GS	RM	BT	AQ	

(Note: Non-CTs desiring training as a CT must have prior BuPers approval.)

If you are in, or eligible for training in, such ratings and desire to enter the STAR Program, submit your request to your CO.

For ratings other than the above-listed 19 ratings—POs and identified strikers considered by their CO as particularly outstanding may be recommended to the Chief of Naval Personnel for participation in this program either in their present rate (non POs) or rating (POs); or, if qualified, in one of the above-listed 19 ratings.

In the latter case, a change of rating must be in the mill. Approval of such requests cannot be guaranteed owing to restrictions on school quotas and advancements which may be in effect at the time the request is submitted. (The basic instruction for this program, BuPers Inst. 1133.13 shows a sample letter for such a request and the endorsement. Part of the sample letter reads: "I prefer to remain in my present rate/rating / I prefer to change my rate/rating to")

Assignment to Class A School — If eligible, you are *guaranteed* assign-

ment to one of the Class A level schools listed in the "Catalog of U.S. NavTraAct and Courses (NavPers 91769D)" or "CNATECHTRA Bulletin of Schools and Courses." The guarantee here is to a school of choice, provided it would be in your normal path of advancement.

Assignments are on an "as-seats-are-available basis." It can normally be expected, however, that a guaranteed transfer to school will occur within 12 months of date of request. ("Class A level school" as used here also includes attending a Class P school, when the P school is required before going to the A school.)

Although the school entrance requirements laid down in the above-mentioned catalog and bulletin remain as established, a waiver of 10 points on combined test score requirements or five points on a separate single score requirement may be granted, by the CO.

If you desire Class A School training and do not have sufficient test scores, including waivers where applicable, to qualify you for this training and it is considered that your present scores do not reflect your true potential, a request for a retest may be submitted.

Requests for changes in rate or rating (apart from those authorized by Article C-7213, *BuPers Manual*) may be requested from the Chief of Naval Personnel. This action should be taken and completed before you enter the STAR Program, since approval of changes in rating (GM3 to RM3, for example), rate (that is, SN to FN) or striker designation (for example, YNSN to RDSN) cannot be guaranteed.

Automatic Advancement to PO3 (for those who graduate from Class A School in upper half of class), those in the STAR program in pay grade E-3 will be advanced to PO3 upon graduation, provided:

- You graduate in the upper half of class.
- You have been recommended by your CO.
- You have completed six months in pay grade E-3.

If otherwise qualified but you do not have the six months in pay grade, you will have an entry made in your service record authorizing your advancement when you complete your six months in grade.

If you graduate in the lower half of your class, you will be designated as a striker for the rating in which trained.

A special provision exists for identified strikers in one of the previously listed 19 ratings who enter the STAR Program. If you have already graduated in the upper half of your Class A school class and have at least six months in grade you may, upon your CO's recommendation, be advanced to PO3 without further examination, effective on your reenlisting and acquiring "career status."

If you are advanced to PO3 while waiting to enter Class A School (which would then cause Class A level training to be inappropriate) you may request assignment to the Class B or C school appropriate to your rating. You will be assigned on an "as-seats-are-available basis," with assignment normally made within 12 months of date of request.

Assignment to Class B School — Eligible STAR Program PO3s and PO2s

are guaranteed assignment to one of the schools listed in the "Catalog of U.S. NavTraAct and Courses" (NavPers 191769D) or "CNATECHTRA Bulletin of Schools and Courses." Such school or course must, however, be in your normal path of advancement. As with the Class A school, assignment is on an "as-seats-are-available basis," with assignment normally being made within 12 months.

Those who have already attended a Class B School are not eligible for this portion of the Program. However, you may qualify for assignment to an appropriate Class C school. This also holds true in cases where a Class B school does not exist for a particular rating.

Class B and C school entrance requirements such as pay grade limitations will be waived for the Selective Training And Retention program PO3s requesting school.

(It might be noted that school selection requirements such as test scores normally apply only to the

HOW DID IT START

Ships Back in Dad's Day

When the recruit of today studies his *Bluejackets' Manual* and comes to the chapter showing the types of Navy ships he sees quite a variety there. Upwards of 175 ship types are listed, divided into about a dozen main categories.

Quite a contrast to what his father or grandfather might have learned back in '17. First question of the "General Ships Features" chapter of the then-current *Bluejackets' Manual* (Fifth Edition) was: "How are vessels of the Navy classed?" The answer was: "Battleships: First line; battleships, second line. Battle cruisers. Armored cruisers:

Cruisers, first class; cruisers, second class; cruisers, third class. Gun boats, monitors, torpedo-boat destroyers, torpedo-boats, submarines, and auxiliaries."

The next question reads: "How are they rated?"

Answer: "In the first rate are men-of-war of 8000 tons and above. In the second rate are men-of-war of 4000 to 8000 tons, and converted and auxiliary vessels of 6000 tons and above, except colliers and other vessels constructed or equipped for special purposes.

"Third rate ships are men-of-war 1000 to 4000 tons, converted and auxiliary vessels 1000 to 6000 tons, colliers, refrigerating ships, distilling ships, tank steamers, repair ships, hospital ships, and other vessels constructed or equipped for special purposes of 4000 tons and above.

"In the fourth rate are all other rated vessels."

On the subject of whether a ship was rated or not rated, there was included this rather unusual statement, which points up how times have changed even since World War I. "Note—Torpedo boats, torpedo-boat destroyers, submarines, torpedo or submarine tenders, while so acting, tugs, sailing ships, and stationary receiving ships are not rated."



Class A and P level of schools.)

Automatic Advancement to PO2 (for those PO3s who graduate from Class B School). Unlike the Class A School incentive, advancement here is not limited to those in the top half of the class. You will be advanced to PO2 upon graduation provided:

- You have been recommended by your CO.
- You have completed one year in pay grade E-4.

If otherwise qualified but you do not have the one year's service in pay grade E-4, you will have an entry made in your service record authorizing your advancement to PO2 when you complete one year in grade.

Those coming into the STAR Program—which means taking a Convenience-of-Government discharge and then reenlisting—qualify for the reenlistment bonus. For a four-year reenlistment, the bonus is equal to four months' basic pay. For a six year reenlistment the bonus is equal to six months' basic pay.

The BuPers instruction that sets up the STAR Program (No. 1133.13) is rather lengthy and it covers several categories of personnel. Its main stress is on "Selected, high quality personnel."

For this reason a covering paragraph is contained in the instruction. It says that such personnel desiring to enter the STAR Program "whose situation presents circumstances not covered herein" may, if considered appropriate by their CO, have their request sent on to the Chief of Naval Personnel for a decision.

Program Set Up to Insure Class A Schools for Recruits

During October, November and December 1960, thousands of Naval Recruits leaving recruit training centers will have orders to report to Class "A" school in four to eight months. The program started in September.

During these months there will be far more recruits who are eligible for class A school leaving recruit training than there are openings in the schools. In the meantime they will be assigned by one of the Enlisted Personnel Distribution Offices to temporary duty under indoctrination for this waiting period.

To make sure these men receive the necessary training before they go into the Fleet for duty, they are being issued orders that will carry them from recruit training, to four to eight months' temporary duty, and then on to school. The orders will include the name of the school, its location, and the class convening date.

By the end of the four-month period, it is anticipated there will be a backlog of some 11,000 class A students. These men will supplement the regular input from recruit train-

ing during the remainder of the year.

About one-fifth of these men will be temporarily assigned to the Atlantic Fleet, another one-fifth to the Pacific Fleet, and the remaining 60 per cent will be assigned to commands within the Continental United States.

Although this will insure that class A schools have most seats full, eligible Fleet personnel who did not get a school when they left recruit training are being permitted to request school under Plan TIGER (Plan To Improve General Employment of Recruits). Complete information on this plan is listed in BuPers Inst. 1510.86A.

Details on how receiving activities are to handle the non-rated men being assigned through orders to class A school can be found in BuPers Notice 1510 of 22 Jul 1960.

NOW HERE'S THIS

Kangaroo, Mark II.

USS Samers (DD947) is probably the only ship in our Navy that has a kangaroo on her bridge—and 24 hours a day, too.

The mascot—a brass jay named Harvey—had been sitting on Queenborough's bridge for some eight years. Then, in Singapore, when Samers and Queenborough were maared alongside each other during a SEATO operation, the Aussies challenged the Americans to see if they could kidnap Harvey. At the same time Samers defied Queenborough to make off with the destroyer's bell.

The day after the challenges were issued, Queenborough found herself without a kangaroo. Samers still had her bell—and successfully resisted the Australians' efforts to recover Harvey.

The kangaroo was retained by Samers until she was about ready to leave Singapore, then it was returned to Queenborough. In recognition of the successful acquisition of the brass mascot by the U.S. Navy men, and in gratitude for its safe return, the Aussies had a replica made and presented it to the American kangaroo rustlers.

Dubbed "Harvey, Mark II," it is now one of Samers' most prized possessions.



Latest List of Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y. is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution of these motion pictures to the Fleet began in August.

Killers of Kilimanjaro (1559) (C) (WS): Melodrama; Robert Taylor, Anthony Newley.

Plunderers of Painted Flats (1560) (WS): Western; Corrine Calvet, John Carrol.

Look for the Silver Lining (1561): Musical; June Haver, Gordon MacRae.

When Comedy Was King (1562): Comedy; Wallace Beery, Charlie Chaplin.

The Strangers of Bombay (1563) (WS): Melodrama; Guy Kolfe, Allan Cuthbertson.

Raymie (1564): Melodrama; David Ladd, Julie Adams.

The Woman in White (1565): Mystery; Eleanor Parker, Sydney Greenstreet.

Tall Story (1566): Comedy; Anthony Perkins, Jane Fonda.

The Unforgiven (1567) (C)

(WS): Western; Burt Lancaster.
Valley of the Redwoods (1568)
(WS): Melodrama; John Hudson,
Lynn Bernay.

Never Say Goodbye (1569):
Drama; Errol Flynn, Eleanor Parker.

Too Soon to Love (1570): Drama;
Jennifer West, Richard Evans.

Thirteen Fighting Men (1571)
(WS): Melodrama; Grant Williams,
Carole Mathews.

Toby Tyler (1572) (C): Drama;
Kevin Corcoran, Henry Calvin.

Twelve to the Moon (1573):
Melodrama; Ken Clarke, Michi Kobi.

The Mountain Road (1574):
Melodrama; James Stewart, Lisa Lu.

Masters of the Congo Jungle
(1575) (C) (WS): Documentary
narrated by Orson Welles.

Sergeant Rutledge (1576) (C):
Western; Jeffrey Hunter, Constance
Towers.

Angry Red Planet (1577) (C):
Science Fiction Drama; Gerald
Mohr, Nora Hayden.

Five Branded Women (1578):
Melodrama; Silvana Mangano, Vera
Miles.

Two Correspondence Courses Are Added, Five Discontinued

Two new Enlisted Correspondence Courses are now available from the Navy Correspondence Course Center at Scotia, N.Y. Five other courses have been discontinued.

Enlisted correspondence courses will be administered (with some exceptions) by your local command instead of by the Correspondence Course Center.

If you are on active duty, your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center, which will supply the course materials to your command for administration.

Personnel on inactive duty will have courses administered by the Center. The new courses are:

Course	NavPers No.
Electronics Technician 3	91373-2
Construction Mechanic 3 & 2	91579-1

(Both these courses may be taken for repeat Naval Reserve Credit.)

The Enlisted Correspondence

Courses for **Mechanic 3** (NavPers 91578-B), **Mechanic 2** (NavPers 91579-D), **Electronics Technicians 3** (NavPers 91373-1B), **Mathematics, Vol. II** (NavPers 91220), and **Manual for Buglers** (NavPers 91257) have been discontinued.

If You Can Meet the Quals NavCad Program Offers You a Big Opportunity

If you are an enlisted man who would like to be a Navy officer in less than two years, and if you are interested in aviation, the Naval Cadet program might be right up your alley. Look over the following qualifications. You may be a potential naval aviator.

To be eligible, you must:

- Be an enlisted man of the Regular Navy or Naval Reserve on active duty for at least a year before submitting an application.

- Be a citizen of the United States.

- Have 60 semester hours (or 90 quarter hours) of unduplicated college work at an accredited college or university; or have 30 semester hours (or 45 quarter hours) of unduplicated college work at an accredited college or university, plus a minimum combined GCT/ARI of 120 and MECH score of 58. Successful completion of the USAFI General Education Development Test, one-year college level, will be accepted in lieu of the 30 semester or 45 quarter hours of unduplicated college work.

- Be at least 18 and under 25 years of age when you submit your application.

- Agree to remain on active duty for three and one-half years after you finish flight training.

- Be unmarried and agree to remain unmarried until commissioned.

- Be physically qualified and aeronautically adapted for the actual control of aircraft in accordance with Chapter 15 of the Manual of the Medical Department. (Waivers of age and physical standards will not be granted.)

This program leads to a commission as Ensign in the Naval Reserve. If you think you meet the above qualifications, submit your application to the Chief of Naval Personnel (Pers B6), via your commanding officer. BuPers Inst. 1120.20B gives all the details you should need.

New Editions of Standard Texts are Now Available

Three standard professional books — **Naval Shiphandling**, by Captain R. S. Crenshaw, Jr., USN, Mixer's **Primer of Navigation**, edited by Captain Donald McClench, USN (Ret.), and the classic, **Knight's Modern Seamanship** — have been brought up to date in new editions.

Perhaps the most valuable material added to this second edition of *Shiphandling* is the new chapter on Rules of the Road. It not only quotes and compares International and Inland Rules, but also gives the professional shiphandler (as well as the amateur) a sound interpretation of the rules.

Other new material includes the handling characteristics of the latest ship types—the giant carriers, the fast destroyer leaders, the nuclear submarines. There is also a new section on minesweepers with special emphasis on the handling of vessels equipped with variable-pitch propellers.

The fourth edition of Mixer's conforms with all recent changes in navigational publications issued by various government agencies. This includes the Nautical Almanac, Air Almanac, Tide Tables, Tidal Current Tables, and Light Lists. The star charts have been revised to conform to the latest list of navigational stars, and the new Star Finder and Identifier (H. O. 2102-D) is described.

Emphasis is placed on the explanation of the use of radar to avoid collision at sea. Simplified instructions for plotting directly on the radar scope and on the new Radar Plotting Sheet recently issued by the Hydrographic Office are discussed.

New information in the 13th revision of Knight's includes nuclear powered submarines, guided missile submarines, Arctic type ships and icebreakers for Arctic and Antarctic expeditions, latest developments in ship construction, propellers, compasses, steering devices, lifeboats, communications systems, and cargo handling. The latest Rules of the Road are discussed.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instruction, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 19—Announced approval by the President of selection board reports which recommended officers on active duty in the Medical Corps, Supply Corps, Chaplain Corps, Civil

All-Navy Cartoon Contest
Richard Varesi, AD3, USN



"Quack!"

Engineer Corps and Dental Corps for temporary promotion to the grade of rear admiral.

No. 20—Announced approval by the President of the report of a selec-

tion board that recommended Marine Corps officers for temporary promotion to colonel.

No. 21—Authorized the transportation, under certain conditions, of a limited amount of alcoholic liquor aboard ship or aircraft for personal use ashore.

No. 22—Announced approval by the President of the report by a selection board that recommended officers of the Regular Marine Corps and Marine Corps Reserve for temporary promotion to major.

No. 23—Referred to recent decision of the Comptroller General which casts doubt upon the legality of crediting fractional year of six months or more as full year for basic pay purposes in the computation of retainer pay.

No. 24—Directed attention to the need to obtain the maximum number of applications for the Navy Enlisted Scientific Education program.

No. 25—Referred to certain BuShips instructions which specified procedures for charging submarines with oxygen from dockside and tenders.

No. 26—Directed commanding officers to nominate certain outstanding USN CPOs for appointment under the limited duty officer program.

No. 27—Announced approval by the President of the report of a selection board that recommended Regular and Reserve line officers for temporary promotion to the grade of captain.

No. 28—Urged all hands to drive safely, particularly over week-ends.

Instructions

No. 1120.29A—Provides eligibility requirements for officer candidate school programs and processing instructions for the submission of applications.

No. 1133.13—Provides information concerning additional career incentives to induce increased numbers of selected, high quality personnel to make the Navy a career.

No. 1306.71—Discusses the policy concerning the use of military personnel in Navy commissary stores.

No. 1510.69E—Solicits applications and outlines eligibility requirements and procedures whereby enlisted personnel may apply for assignment to the Navy Enlisted Scientific Education program.

No. 1520.27B—Announced the cur-

WAY BACK WHEN

USNA in the Old Days

Although life today at the Naval Academy is anything but a bed of roses, it was quite rugged back in the earliest days. Known then as the Naval School in Annapolis, it was the subject of the following excerpts from reports on the school:

It seems the galley and class rooms were close to one another. So a new arrangement was proposed, with this argument: "By this arrangement the Professors and students would not be annoyed, as they are now, by the noise and fumes from the kitchen during recitation hours." (6 Jul 1846.)

A century ahead of refrigeration as we know it today, the Superintendent recommended that an ice (storage) house be built, because: "The use of ice is so conducive to health, and is so important an element in the treatment of diseases during the summer months that we may justly consider it a constituent of the American Materia Medica." (17 Aug 1849.)

Interior lighting in those days was chiefly by whale oil lamps and candles. It seems that the lighting facilities in the quarters were below par, even by the standards of that time. As for the instructors, they had to pay for the oil and candles "out of their small salaries." The proposal was made that: "a reasonable supply of lights (oil or candles) be allowed by regulation to all quarters within the school grounds" excepting "those of the Superintendent, in consideration of his higher salary."

Just where the mids took a bath or a

shower in the very earliest days the records do not say. They could have soaped down in the nearby Severn River in warm weather. At any rate things must have come to a head by 1851, for it was then recommended that a "Bathe-house" be built — "such a building calculated for hot and cold baths, is essential, and necessary to the health and comfort of the acting midshipmen."

But all was not drill, grind and study even then. Another early proposal was that two or three boats be obtained so that the midshipmen "might enjoy the healthful exercises of rowing. These and other facilities of harmless relaxation would doubtless have a tendency to divert the young gentlemen from a practice of mingling too generally in the society and amusements of the Town."



rent program of language instruction at the U.S. Naval Intelligence School, Washington, D.C.

No. 1830.1A — Encourages the timely submission of requests for transfer to the Fleet Reserve, and discusses the conditions under which transfer may be deferred.

No. 5101.3—Announced the availability of the traffic safety film "Death on the Highway (MC 9463)" in naval training aids sections and libraries and naval aviation film libraries and sub-libraries.

No. 5390.1—Clarifies the relationship between the naval leadership program and the protection of moral standards and character education program and prescribes action to be taken.

Notices

No. 1520 (21 July)—Announced the selection of officers for the submarine school class which convened in September at the Submarine School, New London, Conn., and announced, by dates of rank, those lieutenants (junior grade) and ensigns who are eligible to apply for the January 1961 and April 1961 classes.

No. 7312 (29 July)—Revised instructions for the application of accounting data to permanent change of station orders and related authorization and payment documents when costs are chargeable to the appropriation "Military Personnel, Navy."

No. 1120 (1 August)—Outlined the procedures for the submission of applications from USN temporary warrant officers who desire permanent appointment to warrant officer (W-1 through W-4).

No. 1418 (11 August)—Announc-

Three Ships and Crews Will Wear Gold 'E'

The destroyer tender *uss Piedmont* (AD 17) and the destroyer *uss George K. Mackenzie* (DD 836), both Pacific Fleet ships, have won the Battle Efficiency Pennant for the fifth consecutive year. *uss Rankin* (AKA 103) wears the Gold E in the Atlantic Fleet.

These three ships are the only ones in the Navy which may paint the Gold E on each side of their bridge structures. The Bureau of Naval Personnel has also authorized the crew members of these ships to wear the Gold E as part of their uniform. A change will be made to Uniform Regulations to include this new insignie.

Although the Battle Efficiency Award competition was discontinued when fighting broke out in Korea, it was resumed in 1956. These three ships have monopolized the E award in their own divisions since that time.

Admiral Arleigh A. Burke, USN, Chief of Naval Operations, has sent messages of congratulations to all three ships. (A complete story about the competition can be found in the July 1960, All Hands. See also page 18.)

ed the schedule for proficiency pay examinations for pay grades E-4 and E-5 and all pay grades for recruiters to be conducted in November.

No. 1120 (19 August)—Announced the selection of personnel recommended for appointment to the grade

of ensign, Medical Service Corps, USN.

No. 1110 (24 August)—Provided information relative to the selection of enlisted personnel on active duty for appointment as midshipmen in the NROTC program for the class entering school in the fall of 1961.

No. 1530 (24 August)—Announced the selection of personnel for assignment to the Naval Preparatory School, Bainbridge, Md., as candidates for appointment to USNA.

No. 1430 (31 August)—Provided information regarding the future advancements in the steward rating.

\$50,000 for Scholarships Given in Memory of Navyman

A scholarship fund has been established in honor of Commander Anson A. Bigelow, USN, who served in World Wars I and II. The fund is expected to provide about \$2000 yearly for students undertaking graduate studies and residing in Florida's Palm Beach County. Preference in the scholarships will go to former Navy-men, Marines or Coast Guardsmen, or to someone whose family is associated with one of those services.

The annual scholarship will be administered by a veterans' organization in Palm Springs, Fla. The fund will be financed by interest gained on a \$50,000-gift presented by the commander's widow, Mrs. Josephine W. Bigelow. It was Mrs. Bigelow's wish that preference be given candidates in the above categories.

CDR Bigelow entered the U.S. Naval Academy when he was only 16 years of age—one of the youngest men ever to attend the academy.

USS Rankin Has the 'Smart Ship' Habit

uss Rankin (AKA 103) is now the only Atlantic Fleet ship entitled to display a Gold Battle Efficiency "E."

Rankin earned this unprecedented honor when she won the Battle Efficiency Award for the fifth consecutive year as the outstanding ship in her squadron. She is the first ship of the Atlantic Fleet Amphibious Force ever to receive this award and, so far as she knows, she's the first ship in the entire Atlantic Fleet to be so honored.

In the past five years, *Rankin* has won every type of award it's possi-

ble for an amphibious ship to get. (See "Is There a Formula For a Smart Ship?," ALL HANDS, January 1959.) These awards include the Operations Department Green "E," the Red "E" for Engineering, an "E" for the five-inch gun mount, an "E" for a 40mm mount and the Assault Boat Group Insignia.

In 1958 *Rankin* also received the Marjorie Sterrett Award, which is given each year to one ship in the Atlantic Fleet and one in the Pacific Fleet for the highest mark in intra-type battle efficiency competition.

Besides displaying the "E" on the port and starboard bridge structures and flying the Navy's traditional meatball pennant, *Rankin* can now display the Battle Efficiency Plaque.

Named for Rankin County, Ky., the ship is a member of Amphibious Squadron Ten. She is commanded by CAPT L. E. Harmon.

Rankin is designed to carry a small number of troops and most of the supplies and equipment of a battalion to the shores of the enemy, and to land them in an amphibious assault on a selected beach.

As an NAO Officer You'll Have Chance to Fly High, Handsome

NAVAL OFFICERS with a yen to fly, but who can't, for one reason or another, qualify to become a designated pilot, may still be able to build a worthwhile and rewarding career in aviation.

Provided they can meet the requirements, they may be able to join the ranks of a special breed of Navy flying men—as a Naval Aviation Officer. They won't drive the planes of the future, but they'll play an important role in the operation of those planes.

They'll do so as a specialist in any one of several billets—Naval Aviation Observer; Radar Intercept Operator; Bombardier; Navigator; Bombardier Navigator; Airborne Early Warning; Antisubmarine Warfare; ECM Evaluator; Maintenance; Electronics Maintenance; Ordnance and Air Intelligence. And they'll move into one of those fields after basic training at

a newly established school—the Naval Aviation Officer school at Forrest Sherman Field, NAS Pensacola.

NAO, which operates under the control of the Naval Air Basic Training Command, was established after a lengthy study of the complexities created by advances in Naval Aircraft since World War II.

Those studies revealed that technical progress had produced a definite need for better trained crews to operate much more complicated planes. They also showed that a growing number of qualified pilots were, of necessity, being used in a non-pilot capacity because of the lack of trained air crewmen and ground officers.

That's enough of the why of the new school—how do you go about being selected?

BuPers Inst. 1120.29A contains complete information on the new

program, and is much too long to quote in its entirety here. However, there are a few basic requirements. To be eligible, you must:

- Be a male U. S. citizen between the ages of 19 and 27½ at time of appointment. If you're a veteran, however, the maximum age may be adjusted.
- Possess a baccalaureate degree from an accredited college or university. If you have a degree in engineering, electrical electronics engineering, or a good mathematics background your application will be particularly welcome.
- Be aeronautically adapted and be able to pass the physical examination required for Naval Aviation Observer if you wish to qualify for flight crew duties. If you would be a non-flying officer, you must have the same physical qualifications now required for surface unrestricted line officers.
- Score at least a four on the Aviation Qualification Test phase of the Aviation Selection Tests. A qualifying Flight Aptitude Rating score is not required, but, unless you are a candidate for Air Intelligence, you will be given an FAR test, and the results will be forwarded to BuMed.
- Be motivated for aviation duty and be intellectually capable of learning the technical aspects of operation and/or maintenance of the equipment involved.
- Not have been disenrolled for any reason other than physical or flight failure from any military flight training program.

Candidates may be either married or single.

Once selected for the program, you'd first attend 16 weeks of Pre-flight School as an Aviation Officer Candidate receiving indoctrination and training in the first phase of becoming an NAO. You would then join a class at the Basic NAO school, where you would follow an eight-week curriculum aimed at acquainting you with all of the various fields open to an NAO school graduate.

Specifically you would be instructed in jet engines, aviation electronics, air intelligence, communications, special weapons, navigation and meteorology. Other subjects would include combat information

And North Pole Was Home Plate

Baseball pioneers Doubleday, Chadwick and Cartwright no doubt fondly dreamed that their brainchild, baseball, would some day become a widespread and popular sport. But it's certain that even in their more wildly optimistic moments they never foresaw the day when a baseball game would be played at the top of the world, with the North Pole as home plate.

Organizing and playing in the historic game were crew members of the trailblazing nuclear submarine *USS Seadragon SS(N) 584*. *Seadragon* had surfaced near the pole after pioneering a new and shorter east-west passage through the lower Arctic.

Enlisted men battled a team of officers and CPOs in the frosty encounter, played in below-freezing temperatures under clear skies.

Polar Field was laid out in such a way that a home run would travel

"from today into tomorrow, and from one side of the world to the other." And—shades of Zeke Bonura, Ernie Lombardi, Fat Pat Seerey and other notable tanglefeet of past major league renown — a runner leaving the plate arrived at first base some 12 hours later.

Seadragon left Portsmouth, N.H., 1 August, and reached the Pole after negotiating a series of sounds and straits designated as Parry Channel.

Then, the ballgame over, she submerged again and headed out through the Chukchi and Bering Seas to the Pacific. She reached Pearl Harbor early in September, and joined the Pacific Submarine Force.

Reports of the "bundled-up ballgame" radioed from the Pole by *Seadragon's* skipper, CDR George P. Steele, II, USN, didn't include a score—but it may have been zero-zero, rising steadily.



centers, naval leadership and naval aviation indoctrination.

You would make familiarization flights in such propeller aircraft as the T-34, T-28, SNB, and S2F, and in a T2V jet trainer. Air crew trainees fly a total of 20 hours, while non-flying officers spend six and a half hours in the air.

As a graduate of the Basic NAO school, the kind of further specialist training you will receive will be determined by the needs of the service, and by your own desires, abilities and background.

WOs Have Chance to Apply For Permanent Commissions, Final Board Will Be Convened

If you are a temporary warrant officer (W-1 through W-4) in the regular Navy who would like to be a permanent WO, you're going to get one chance to see it happen. The Chief of Naval Personnel has asked WOs who want a permanent commission to apply now.

Permanent commissions were promised warrant officers when the Secretary of the Navy decided to discontinue the warrant officer program in 1959. The current program has been tailored primarily for those men who will remain in the Navy during most of the phase-out period.

Warrant officers who are serving in a higher grade as temporary LDOs (Limited Duty Officer) are not eligible to apply under this program, but they will be considered for permanent warrant rank if they are later twice passed over for selection to the next higher grade.

This is a one-shot affair, and WO applicants will be considered by a selection board to be convened by the Chief of Naval Personnel. No later boards will be convened for this purpose.

There are two possible obstacles to the program that the Chief of Naval Personnel wants to make clear to all WOs. They are the Dual Employment and Dual Compensation Acts. You will probably want to work after you retire, and many may plan to take a job with the Federal government. If you retire as an officer, you may be restricted in the amount of money you may earn, or even if you can accept a Federal government position at all.

Here is a short summary of the

All-Navy Cartoon Contest
A. B. Castro, SK3, USN



"I'm very sorry, Sir, but we don't hire out for weekend cruises!"

two acts. Exemption from one does not necessarily result in exemption from the other.

Dual Employment Act — Generally speaking, the Dual Employment Act prohibits officers who are retired in the permanent or temporary grade of Warrant Officer, W-1 or above, from accepting civilian employment with the Federal government. The prohibition, when applicable, is absolute, and may not be avoided by waiving acceptance of retired pay during the period you hold the Federal government job. It is true, however, that there are certain general exceptions to this act in addition to the specific exceptions which allow employment of retired naval officers in some appointed Federal positions.

Here are some of the exceptions. The Dual Employment Act does not apply to:

- Members who retire while serving in enlisted status on completion of 30 years' active service, even though subsequently advanced to officer status. (It should be noted in this connection that acceptance of a permanent appointment in the grade of warrant officer will prevent reversion to enlisted status for retirement purposes.)

- Members who are transferred to the Retired List from the Fleet Reserve and subsequently advanced to officer status.

- Regular Navy officers, including Warrant officers, retired for reasons of physical disability.

Dual Compensation Act—This act affects you only if you are exempt from the Dual Employment Act. In such cases, although the retired officer may be free to accept Federal Employment, the combined total of compensation he can receive from that position and from his retired pay may be limited to \$10,000 per year. Under the terms of the Act, however, the retired officer may waive all or part of his retired pay in order to keep the job and bring the combined rate down to the \$10,000 limit. If the job pays more than \$10,000 per year, he may waive his entire retired pay and receive the total compensation of his Federal position.

Here again, there are certain general exceptions. The Dual Compensation Act is not applicable to officers retired for disability incurred in combat or caused by an instrument of war during a period of hostilities, or to retired commissioned or non-commissioned warrant officers, providing they are exempt from the Dual Employment Act.

Full information regarding method of application and a sample letter of application can be found in BuPers Note 1120 of 1 Aug 1960.

Hydro Now Has Midwest Branch for Seaway Sailors

The Navy has opened its first inland Branch Hydrographic Office.

A result of the opening of the St. Lawrence Seaway and Chicago's increasing importance as a world sea port, the new facility is located at 36 West Jackson Blvd., Chicago, Ill. It will furnish both the Navy and Merchant Marine a wide assortment of nautical charts and publications for the use of ships sailing to and from the Midwest.

Branch Hydrographic Offices are now located in 13 principal world sea ports to assist the main Hydrographic Office in collecting and disseminating navigational information.

The Hydrographic Office dates back to 1830, when a Depot of Charts and Instruments was established. Today the office is the Navy's surveying and charting agency. From its hydrographic, oceanographic, photogrammetric, magnetic and gravity surveys it produces charts, manuals, tables and such which are used in all parts of the world.

Coming to Washington for Duty? Here's What You Can Expect

ALL TOO OFTEN, it has been necessary to base our reports on living conditions throughout the world on pure hearsay. Limitations of budget and staff just do not permit us to check personally on each site, much as we'd like to.

This time, however, we know what we're talking about. We're in a position to confirm the authenticity of the following report on living conditions in Washington, although we do feel that the authors could have been a little more emphatic concerning certain aspects—summertime humidity, for example. As the report states, if you have an air conditioner, bring it. We also heartily concur that parking is a problem.

If you enter Washington in your own automobile, you may either come into the city from Virginia (south) or from Maryland (north). Located on all main entrances to the city are many excellent motels and tourist homes. If you come to Washington by commercial airplane you will land either at the National Airport, which is situated three and one-half miles south of Washington on the Mount Vernon Parkway, or, at Friendship Airport, located approximately 20 miles northeast of the city via Washington-Baltimore Parkway. If you arrive by train you will come into the Union Station which is just north of Capitol Hill at Massachusetts and Delaware Avenues, Northeast. There are two bus terminals; the Trailways at 1201 New York Avenue, Northwest and the Greyhound at 1110 New York Avenue, Northwest. There are buses as well as taxis available at bus and train stations.

Climate—With a temperate rain climate, predominantly oceanic but partly continental, Washington seems cold and wet in winter and hot and humid in summer. You also may have heard about the beautiful spring weather and all too short but lovely autumn, with its incomparable Indian summer. There is an average of 40 inches of rain and 22 inches of snow. The humidity, a general subject of conversation, has averaged 76 (at 7 A.M.) and 62 (at 7 P.M.) per cent in the past 17 years. An air conditioner will prove to be a boon in summer months.

Health Conditions—There are no unusual prevalent diseases in Washington and no vaccinations other than those standard throughout the United States are necessary.

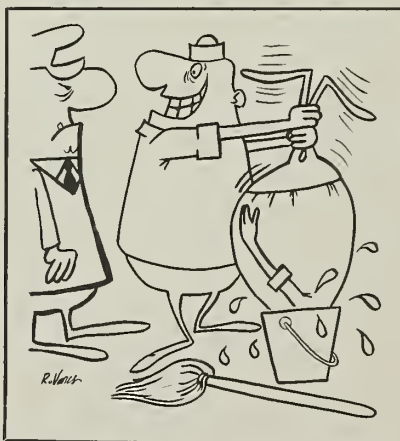
Sanitary conditions are excellent. Building and sanitary codes are strictly enforced. City water may taste unusual at first, due to excessive chlorination.

Armed Forces Hostess Association—The Armed Forces Hostess Association welcomes newcomers to the area. This is an association of volunteer service wives, which maintains an office in the Pentagon, Room 1A736, where, in the past year, the association has answered thousands of inquiries concerning, among other things, schools, camps, baby-sitters and shopping services. They also operate an overseas file for the benefit of families leaving the area for duty in foreign lands, and another file for helping families who are transferred to other stations in the States. Telephone OX 7-3180 or OX 7-6857.

Housing—The Joint Armed Forces Housing Office located in Room 1A884 of the Pentagon Building offers assistance to military and civilian personnel of the Department of Defense to find living accommodations in the greater Washington area. There are branch offices located at Bolling Air Force Base and at the Main Navy Building.

Upon your arrival in Washington,

All-Navy Cartoon Contest
Richard Varesi, AD3, USN



"Why no, Chief, we weren't goofing off!"

a housing counselor will discuss your particular needs with you and offer listings of appropriate available accommodations. The Office does not supply listings by mail.

The housing situation is not critical at the present time. However, the prices of all types of housing are high. One to four weeks is required to locate suitable housing for permanent residence. It is recommended that you not bring your family to Washington until you find suitable housing unless you are willing to pay the high price for temporary lodging.

Apartments in Washington are no longer as difficult to obtain as they were during and just after the war. It is difficult, however, to estimate the approximate rentals to be expected, since so much depends on location, size, condition, and other intangible factors.

The following prices reflect prevailing monthly rental rates on housing in this area. In permanent-type housing of any kind the one-year renewable lease is prevalent. A protective clause covering permanent change of station is to be found in many cases, though it is not universal.

	Unfurnished	Furnished
3- and 4-Bedroom Houses	\$125 to \$200	\$135 to \$250
2-Bedroom Houses	100 to 150	120 to 150
3-Bedroom Apartments	106 to 150	175 to 225
2-Bedroom Apartments	87 to 99	110 to 150
1-Bedroom Apartments	73 to 86	85 to 125

Apartment rentals usually include utilities, while house rents do not. It can also be assumed that such apartments and houses contain kitchen ranges, refrigerators and lighting fixtures. Many apartment houses also have central telephone exchanges with extensions in each apartment. Some provide metered automatic washers and dryers.

The Joint Armed Forces Housing Office also maintains a file of houses for sale. It is difficult to estimate real estate costs but as in any large city, prices are high.

A limited number of Bachelor Of-

ficers' Quarters, with complete facilities, including messing, are available for bachelor officers and those married officers who are not accompanied by their families. These quarters are located at the Naval Air Station, Anacostia, and the Naval Station, Washington, D.C.

There is one local housing project for Navy and Marine Corps enlisted personnel and their families, the Bellevue Naval Housing Project. Bellevue contains 601 units of one-two- and three-bedroom unfurnished apartments. These units are unfurnished except for stove and refrigerator. Rates including utilities are:

	Shelter	Utilities	Gross
1-bedroom	\$24.00	\$16.00	\$40.00
2-bedroom	33.00	19.00	52.00
3-bedroom	36.00	24.00	60.00

There is a considerable waiting period for this housing; nine months for a one-bedroom unit, 12 months for a two-bedroom unit, and 17 months for a three-bedroom unit. Report to the Naval Housing Office, Building 200, Naval Weapons Plant for an interview regarding eligibility. If eligible, your application is accepted and placed on file.

PRNC also maintains a housing list for Chinquapin Village, a low-cost housing unit in Alexandria, Va. Unlike Bellevue, Chinquapin is administered by the Alexandria Redevelopment and Housing Authority. Whereas Bellevue is occupied entirely by Navy and Marine Corps personnel, Chinquapin is divided between military and civilian personnel. This housing is available to enlisted personnel on a hardship basis only. Information concerning eligibility is available at the PRNC Housing Office. The rental rates are one-bedroom, \$52.00; two-bedroom, \$63.00; and three-bedroom, \$68.00. Again there is a considerable waiting period for this housing; six months for a one-bedroom unit, 12-18 months for a two-bedroom unit, 24 months for a three-bedroom unit.

You may apply for housing in advance of your arrival by a letter request, accompanied by a certified copy of transfer orders, addressed to Commandant, Potomac River Naval Command, U.S. Naval Weapons Plant, Washington 25, D.C. Applicants will be placed on the appropriate housing list as of the date of re-

ceipt of the request in the Housing Office. Upon arrival in the Washington area you must report to the Potomac River Naval Command Housing Office to complete your application.

Since there is such a long waiting

period for the Bellevue housing, some personnel live in the low-cost housing controlled by the National Capital Housing Authority. The rental rates for this housing vary from \$24.00 to \$97.00 per month, according to your income.

WHAT'S IN A NAME

What to See in Washington, D. C.

Of course, no stay in your Capital City would be complete without a tour of all the public buildings and places of historical interest in and near Washington. There are so many places to see that only a few can be mentioned here, but others will be discovered after you have settled in this city.

The natural starting point for any tour of Washington is the Capitol. Across from the Capitol is the Supreme Court Building. The first Monday in October usually marks the beginning of a new court session which lasts into June, and during this period there is a section of the seats open to the public. In this building are to be found such interesting items as the oldest Bible used in the Government, which has been used for swearing in Justices of the Court.

Adjacent to the Supreme Court Building is the huge granite structure of the Library of Congress, the largest institution of its kind in the world. In the Archives Building several blocks away, one may see the original Declaration of Independence and the Constitution of the United States.

Along Pennsylvania Avenue, between the Capitol and the White House, is the Federal Building Triangle, containing more than \$200,000,000 worth of structures. The base of the Triangle is the Department of Commerce Building. Others in this area include the building of the Interstate Commerce Commission, Post Office Department, Department of Labor, Internal Revenue Service, the Department of Justice and the F.B.I. Headquarters, which is open to visitors throughout the year.

Not far from the White House, in a sixty-acre park, is the towering marble shaft of the Washington Monument. It is the tallest masonry structure in the world, rising more than 500 feet. Nearby is the temple-like Lincoln Memorial, perhaps the most impressive of Washington's many monuments, and overlooking the Tidal Basin is the newer Jefferson Memorial.

Standing at the Lincoln Memorial visitors can look toward the Capitol and view the tract that is known as the Mall, a great park flanked on one side by Constitution Avenue and on the other by the Smithsonian Institution and the greatest Department of Agriculture Buildings.

No tour of Washington would be complete without a visit to historic old Georgetown. Many of the old homes have been restored and are beautiful examples of old Georgian architecture. Dumbarton Oaks, 3101 R Street, Northwest, a handsome old Georgian estate, is open to the public daily, except for Monday, from two to five. Other interesting houses to see in Georgetown today are "Evermay," 1623 28th Street, Northwest and the Bodisco House, 3322 O Street, Northwest.

Another must for the Navy family is the Truxtun-Decatur Naval Museum, located at 1610 H Street N.W. (see ALL HANDS, December 1959, p. 19.)

Across the Potomac, over the \$10,000,000 Arlington Memorial Bridge, is Arlington Memorial Cemetery. Here is the Tomb of the Unknowns. Here also is Lee Mansion, the old residence of General Robert E. Lee.

One of the most interesting diversions for the newcomer in Washington is the trip to Mount Vernon. After leaving Arlington, the highway is routed through historical Alexandria. George Washington Memorial Parkway follows the winding Potomac directly to the old homestead of George Washington, which is 15 miles south of Washington. Mount Vernon probably has more universal appeal than any other American shrine. It captures the leisurely charm and courtly decorum of an eighteenth-century estate. Every ship of the Navy which passes the spot lowers its flag to half mast and renders honors.

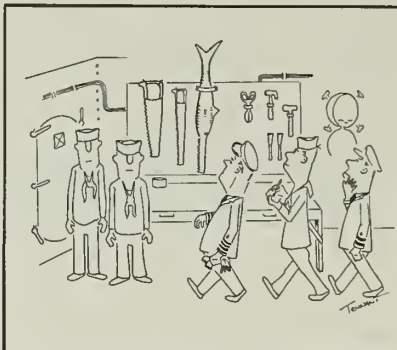


There are many good hotels available in Washington, although, as with all real estate costs, prices are high. They range from the more expensive hotels through the more moderately priced, without the luxury features but adequate and comfortable.

In addition, there is a public tourist camp operated by the National Capital Parks in East Potomac Park and there are numerous good motels as well as authorized tourist homes, located in Maryland and Virginia on all roads leading into the city. Many of the motels and tourist homes, AAA-approved, charge very reasonable rates and offer good places to stay while house-hunting.

Domestic Help — Servants are scarce and expensive in Washington. The same is true for gardeners and men to do odd jobs around the house. Wages for domestic servants range from \$20.00 to \$40.00 per week depending on the number of meals they receive and the length of

All-Navy Cartoon Contest
T. H. Tennant, YNC, USN



time they work as well as whether they "live in" or maintain separate quarters. Servants hired by the day are somewhat more expensive and their wages usually include car fare.

Clothing—The climatic conditions of Washington are such that wardrobes must range from heavy clothing in winter to the lightest summer clothing. While the temperature in winter months is not excessively low,

the cold is often felt more intensely because of the humidity. Serviceable clothing on hand should be brought since prices are high, although, as in any large city, all kinds of clothing are available.

The influence of the "Government Girl" who is the prime consumer in Washington is reflected on the clothing market. Consequently, there are in Washington many large and small stores where inexpensive dresses are available, such as cotton or rayon street dresses for as little as \$8.00. There are also exclusive hat, dress and shoe stores available for women who desire clothing of better quality, durability and originality.

Children's clothing is expensive, especially for snow suits and other large items. However, there are good bargain basements in the large department stores and mail order stores located in Washington, Maryland and Virginia.

Footwear in Washington is especially expensive, having increased

How to Get Around in Washington

The District of Columbia, seat of the Federal Government, was created as an area 10 miles square, taken from the sovereignty of Maryland and Virginia. In 1846 Virginia's portion was ceded back to that State and is now Arlington County. The District is now just under 70 square miles in area and lies entirely on the left bank of the Potomac River, 115 miles by river from the Chesapeake Bay and 185 miles from the Atlantic Ocean.

The bill for a Federal town was passed on 16 July 1790, and in January 1791, President Washington chose the land that is now the District of Columbia. Major L'Enfant, the brilliant French engineer was selected to plan the city. The basic idea of L'Enfant's plan was the development of the city on two axes of parks, with a monument at their intersection; one park system to extend West from the Capitol to the Potomac and the other one south from the White House to the river. The Capitol building was like the hub of a huge wheel, with four streets, radiating from it which divided the city into four sections,

Northeast, Southeast, Northwest and Southwest.

From the very beginning, the plan for Washington streets was almost perfectly carried out. It seems very simple, but many newcomers to the city complain of difficulties in finding their way about.

L'Enfant had intended that all sections of the city be the same size; however, the first large development began at the foot of Capitol Hill and extended to the West and North, hence, today, the Northwest section is by far the largest, reaching out to include Georgetown.

Having planned the four sections, L'Enfant then named all the streets running due east and west with the letter of the alphabet. He planned to use single letters and when the single letters had been exhausted, words of one syllable beginning alphabetically. When the one-syllable alphabet had been used, he planned to use words of two syllables and so on.

In the different quadrants of the city these names are different, but the plan has been followed exactly. L'Enfant then designated streets

running due north and south by numbers; for example, First Street, Second Street, etc.

Once one understands the plan of the city, it is not difficult to find a certain address; for instance, a house at 1736 N Street would be located on N Street running east and west between Seventeenth and Eighteenth Streets running north and south.

In addition to these streets, L'Enfant planned avenues which cut through the other streets on the diagonal. The avenues are named for states, including Hawaii and Alaska. Where avenues and streets meet there are often circles and parks and these seem to cause much of the confusion to newcomers.

Government is the most important occupation in Washington. Not only are there many military personnel stationed here, but by far the greatest number of civilians are members of the government service.

Washington's governmental activity also brings thousands of travelers to the city. It has the largest transient population for its size of any city in the world.

in price from 50 to 75 per cent in the last few years.

For social occasions the dress is generally informal. Cocktail parties for women require short silk or rayon dresses or a suit, with a suitable afternoon hat and dressy accessories.

The uniform of the day for naval personnel which is worn on duty during office hours in the Washington area is shown in the box on this page.

Laundry and dry-cleaning facilities are operated by Navy Exchanges, and pick-up stations are available at several locations in the Navy buildings in the area.

Commissary and Post Exchange

—There are seven commissary stores in the Washington area. All are closed Mondays and holidays and most are closed on the last day of each month for inventory. The commissaries are located at:

Cameron Station

Duke St. extended, Alexandria, Va.

Fort Myer Arlington, Va.

Walter Reed Hospital Washington, D.C.

Fort Lesley J. McNair

4th & P Sts., SW., Washington, D.C.

Bolling Field

Washington, D.C. (Anacostia, SE.)

Fort Belvoir Fort Belvoir, Va.

Andrews Air Force Base

Andrews Air Force Base, Md.

Medical Care—There is inpatient medical care available for naval dependents at the Bethesda Naval Hospital, but admittance is authorized only through Main Navy Dispensary for dependents. The dispensary at the Main Navy Building cares for dependents while the dispensary at the Arlington Annex cares only for uniformed personnel. Since there is a concentration of military personnel and dependents in Washington, the existing facilities are often crowded.

There are many excellent private physicians, dentists and oculists available in Washington although they, too, may have rather crowded schedules. It is best to make appointments as far in advance as is possible.

Schools—There are numerous excellent schools available in Washington from nursery age through college and university. Lack of qualified teachers with consequent overcrowding is noticeable. The only

All-Navy Cartoon Contest W. R. Maul, CT1, USN



"Interested in any sports?"

general requirements for attendance at public schools are that residence within the District must be shown, that the pupil have a birth certificate and that he has had a successful smallpox vaccination. In Maryland and Virginia, residence within the county or school district must be shown.

Private schools are available both in the District and in neighboring areas.

Public kindergarten schools are available in the District of Columbia and became available in Arlington, Virginia for the school term in September.

Georgetown University, George Washington University, American University, Catholic University, Maryland University and numerous

other colleges, graduate schools, art schools, business and technical schools are located in the Washington area and offer much in the way of higher education.

Churches—There are churches of nearly every denomination located in the Washington area. There are, in addition, many churches which are landmarks for the sightseer. The Washington Cathedral of St. Peter and St. Paul (Episcopal) located at Massachusetts and Wisconsin Avenues Northwest, is an impressive sight. Christ Church in Alexandria, Va., was built in 1773 and George Washington was one of the first vestrymen. St. Matthews Cathedral on Rhode Island Avenue, Northwest, is one of the finest churches in the area.

Shopping—The main shopping area of Washington is in the downtown section between 7th and 14th streets on F and G. However, in the past few years, numerous suburban shopping centers have grown up and many of the larger department stores have large suburban stores in Virginia and Maryland. There is a two per cent sales tax in the District as well as a food tax of one per cent. Maryland has a sales tax of three per cent. Virginia has neither a sales nor a food tax.

There is a shopping service available in the area with branches in the District, Maryland and Virginia, which offers a discount for military personnel on items such as television

Here's Uniform of the Day in the Washington Area

Dates	*Officer	Enlisted	Women Officers & Enlisted Waves
Mid-Apr to Mid-May	Service Dress Blue B or Khaki	Service Dress Blue B or Service Dress White	Service Dress Blue B Service Dress Light Blue or Gray Working
Mid-May to Mid-Sep	Service Dress Khaki or Tropical White Long	Service Dress White or Tropical White Long	Service Dress Blue B Service Dress Light Blue or Gray Working
Mid-Sep to Mid-Oct	Service Dress Blue B or Khaki	Service Dress B or Service White	Service Dress Blue B Service Dress Light Blue or Gray Working
Mid-Oct to Mid-Apr	Service Dress Blue B	Service Dress Blue B	Service Dress Blue B

Coats are to be worn in public, but may dispensed with in offices.

*Officers and warrant officers have been authorized to wear civilian clothing at the option of the individual officer concerned. This authorization is applicable to officers serving in the following: Offices of SecNav and Executive Assistants, EXOS, Office of CNO, OPNAV, JAG and Bureaus.

The uniform is worn by inactive Reserve officers when on annual training duty and by other officers on certain specified occasions.

sets or large household appliances.

Local Transportation—Washington has the greatest number of automobiles per capita of any city in the United States. Large numbers of foreign license vehicles from Maryland and Virginia suburbanities who work in the District and untold numbers of tourist and visiting automobiles aggravate the situation. With the congestion of streets in the business and government areas in downtown Washington, finding a parking space is a problem.

Public transportation in the District is provided by the D.C. Transit System which operates streetcars and buses. (The streetcars are being phased out to improve traffic conditions.) Despite the number of vehicles in operation, service is not adequate during the morning and evening rush hours, and consequently, it is still common practice to queue up.

Suburbanites are served by various bus companies, all of which operate under public control either by the Maryland or Virginia Governments or jointly with the District Public Utilities Commission. Consequently, service is generally adequate and dependable and fares are fairly reasonable, although if you live in Virginia and work in the District you may not transfer, and depending on where you work, it may be necessary to pay two bus fares.

Taxicab service in the Washington area is convenient. Rates are scaled according to the number of persons carried and the zones traversed.

Excellent government transportation connects the various Department of Defense installations in the Washington area. Military bus service is available between the Pentagon, Arlington Annex, Yards and Docks, Main Navy Building and the Capitol. Other facilities of the official government transportation system provide service to the Naval Weapons Plant, Potomac Annex, Communications Annex, Fort Belvoir, Langston Hall, the Naval Air Station and Andrews Field.

Social Affairs—Many Navy families are reluctant to request Washington duty because of the prevalence of persistent rumors regarding formal Washington entertaining with its resultant expenses. Because

ANSWERS TO QUIZ AWEIGH

1. (c) Dress blue jumper.
(a) Undress blue jumper.
(b) Peacoat.
(c) Blue service cap.
2. Orion—the Hunter.
3. One-half inch. (Letters ½-inch in height.)
4. (c) Fleet, air.

This month's Quiz Aweigh is on page 43.

of that it may be helpful to know that socially speaking the Washington Navy is not so formal as it used to be.

In pre-World War II days when there was a smaller Navy, Washington duty made many demands on the family pocketbook because of social affairs and formal dinner parties which were considered in the category of social obligations.

With the advent of the larger Navy and less formal entertaining in many quarters, certain problems of a social nature ceased to arise. Today questions on Navy and Washington protocol are, for the most part, answered in the Foreign Liaison Section of the Office of Naval Intelligence. Explanations are made about calls and calling cards.

The social side of Washington life need no longer be an important factor in the decision of junior officers or enlisted personnel when requesting duty in this area. Only officers in key positions call on foreign ambassadors and attaches, and present practice is for only officers

with rank of captain and above to leave cards at the White House.

Recreation—There is an enlisted men's club at the Naval Air Station, Anacostia. There are CPO messes (open) located at the Naval Station, Washington, D.C., and the National Naval Medical Center, Bethesda, as well as at the Naval Air Station, Anacostia.

The National Naval Medical Center Bethesda, and the Naval Weapons Plant each have a commissioned officers' mess (open) with dining facilities, a cocktail lounge and other facilities. There is an Army-Navy Country Club available for officers. Facilities include golf courses, swimming pools and tennis courts. Lunches, dinners and dances are held throughout the year.

The National Capital Parks, Department of the Interior, control numerous tennis courts, golf courses, swimming pools, etc., on Federal property, which admit the general public. A great variety of sporting facilities such as horseshoe pitching courts, baseball and softball diamonds are available through the District of Columbia Recreation Boards, the only stipulation being that advance reservations must be made. In addition, picnic areas in Rock Creek Park, are available, free of charge through the Recreation Association, and here again, advance reservations must be made. Horseback riding also in Rock Creek Park, is popular, but expensive.

With many people, hiking is a favorite form of recreation and service personnel often join clubs whose activities include hikes to all parts of Washington and the surrounding area.

The National Zoological Park, ranking among the finest in the United States is another favorite recreation spot, especially with the children.

The professional Washington and numerous college and schoolboy teams have a wide following among sports fans and a variety of sporting events are scheduled at Griffith Stadium and Uline Arena. In nearby Maryland and Virginia, flat racing, harness racing, and steeplechasing tracks attract persons of all ages.

There are also many recreational opportunities in the nearby Chesapeake Bay and mountain areas.

All-Navy Cartoon Contest
George Sena, BMU1, USN



"Well, why didn't you stop him?"

THERE'S NO QUESTION ABOUT IT—of all the excellent titles selected for review this month, *Surface at the Pole*, by CDR James Calvert, USN, easily leads all the rest in interest for most Navymen.

uss *Nautilus*, SS(N) 571, was, of course, the first to travel under the North Pole, but *uss Skate*, SS(N) 578, had a different assignment—to travel under the Arctic ice, then see if it would be practical to surface in the dead of winter. In this first-person account, CDR Calvert, skipper of *Skate*, not only explains how his sub accomplished its mission but re-creates the sights and sounds, moods and sensations, evoked within the confines of *Skate* on its long run beneath the surface. He also tells of the earlier history of polar exploration which paved the way for his own voyage. The accompanying photos make the text seem all the more real.

There's little doubt about it — oceanography is becoming more and more important to everyone in the Navy and, it might be mentioned, it's becoming more and more interesting. The latest contribution to a growing library on the subject is *Frontiers of the Sea*, by Robert C. Cowen.

Admitting the impossibility of giving adequate treatment to every aspect of the science, the author does give a layman's understanding of this important field of scientific exploration and background. In 11 chapters, the author tells in varying degrees of detail the birth of the science, the origins of the seas, the undersea landscape, probing the

deep-sea floor, the patterns of waves, currents, sands, theories of heating, cooling and water movement, the range of life in the sea, food from the sea, and the future of undersea exploration. A good, solid introduction to a subject of growing importance.

There's plenty of World War II coverage in this month's selections. Two are concerned with dramatic incidents which involved the British Navy. *Black Saturday*, by Alexander McKee, presents a new slant on the sinking of the British battleship *Royal Oak* in 1939. While lying inside the main base of the Home Fleet at Scapa Flow she was shaken by four explosions, rolled over and, within seven minutes of the last explosion, sank with nearly 800 men trapped inside. Up to the present, credit has been given a German sub for the sinking. Now, McKee casts considerable doubt on this version. He thinks it's sabotage. Right or wrong, his description of the actual sinking is excellent.

Then there is *The Greatest Raid of All*, by C. E. Lucas Phillips. This is a description of the destruction of the largest dock in the world, the Normandie Dock at St. Nazaire. The raid was made in March 1942 by a group of some 600 men, mostly commandos, using torpedo boats and an ancient destroyer. They got away with it because it was "one of those actions which can only be attempted, precisely because it must appear to the enemy to be absolutely impossible." Not impossible, but almost so.

Another incident in which the British did not precisely cover themselves with glory is described in *Fortress: The Story of the Siege and Fall of Singapore*, by Kenneth Attwill. As the author spent some three and one half years in a Japanese prison camp as a result of that fall, he can be forgiven if his account is not coolly objective. His thesis: this is what happens when rulers are unable to see the waning of their power in a new kind of world. Grim, but instructive, reading.

The Edge of the Sword, by Charles de Gaulle, translated by Gerard Hopkins, is another World War II book of an entirely different genre. This is an exposition of de Gaulle's concepts of the nature of war and of a leader.

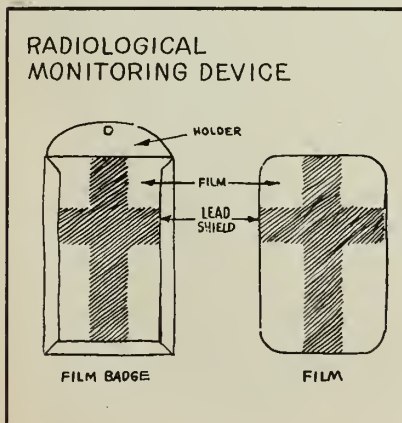
He believes that men can no more do without being controlled than they can live without food, drink and sleep, and that the factors of command are to be found in the personal prestige of the leader. He must, according to de Gaulle, have the power to dominate events, leave his mark on them and assume responsibility for the consequences of his action. If you wish, you can try to guess whom he had in mind as he describes the perfect leader.

The Conspirators, by Bailey Geoffrey, offers a decided change of pace. It's a blood-and-thunder account of Russia's OGPU activities in post-revolutionary Europe. It describes how some of the great Russian agents lured equally great counter agents to their deaths; how White Russians were tricked into contributing to their enemy's cause; how the agents kidnapped prominent White Russians who had reached asylum and returned them to the grip of the Soviets. After devoting considerable space to the Stalin purges of 1937-38, the book concludes with the evolution of the OGPU into the equally grim NKVD of today. Strong meat.

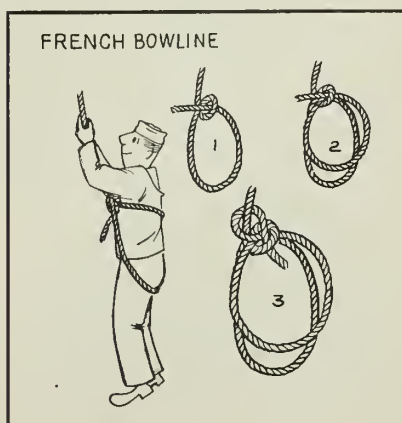
Two novels have been selected for comment. *The Beardless Warriors*, by Richard Matheson, is concerned with the story of youngsters—teenagers—who suddenly grow up as a result of their wartime experience during World War II. Matheson tells what happens when the squad is taken directly from basic training into the front lines. You grow up in a hurry, or else.

Sands of Kalahari, by William Mulvihill, carries the man-against-nature theme and Mulvihill manages to suggest that man against man is much rougher and more dangerous than nature can ever be.

Grains of Salt—



Grains of Salt—





1860 Japanese- U.S. Navy Work Together

Just one hundred years ago, a Japanese warship first set sail for the United States on a ceremonial visit. On board, as an early version of our contemporary MAAG missions, were a naval lieutenant and 10 seamen to help the inexperienced Japanese seamen across the Pacific.

*Here's the story of the beginning of the Japanese Navy as that nation emerges from the feudal era, and of the historic first cruise of a Japanese warship across the Pacific to the United States. It was written by a Japanese, Masataka Chihaya, managing editor of *Shipping & Trade News*, Tokyo, Japan. The author had access to various accounts by writers on the scene, including one report that has just recently been disclosed. The following are excerpts from his lengthier account.*

JUST IMAGINE THIS: A three-masted schooner corvette, of only 400 tons, with a Sun flag atop the stern pole. Nearly 100 officers and men, all clad in Happilike coat and cotton trousers, all with quaint hairdos and wearing straw sandals.

Also on board, a team of 11 American naval officers and men, headed by a young, full-bearded captain. All but one of the Japanese can't speak English, and orders are given in Dutch! To add to this, on deck are two hogs, 60 chickens and 20 ducks.

This was what happened exactly 100 years ago this year. The time was February 10, 1860 and the place, Uraga, at the mouth of Tokyo Bay.

The setting, perfect for a movie, was far from that for the group's makeshift, reckless venture of crossing the notoriously rough winter North Pacific. They had been trained in naval technology for less than five years,

and the longest cruise they had ever made was from Edo, the present Tokyo, to Nagasaki in the western part of Japan proper and back again.

Their assignment was to go to the United States with USS *Powhatan*, which carried on board the Japanese Embassy, consisting of two ambassadors and their suite of 79 persons. The Samurai ambassadors were assigned to present to United States President James Buchanan the ratification by their government of the Treaty of Amity and Commerce signed by the United States and Japan two years before.

However, their real intention was to prove their ability at ocean navigation. Further, they intended to leave the small inlet facing Tokyo Bay ahead of the *Powhatan*, and then make a cruise alone. How reckless their venture would be—but few of the rash youths of the infant Japanese Navy cared.

The only exception was an admiral, on board the corvette to take command of the cruise. Though also young and inexperienced, he foresaw the grave risks involved in the adventure. So skeptical was he that he arranged to have the American team go with his ship.

FOR THE SAKE OF PRIDE, the Japanese regarded the American team, from captain down to sailors, as "just passengers" returning to their homeland. As it turned out, however, they proved to be far more than that; their helping hands were very badly needed, as the thoughtful admiral had anticipated.

Condensed from "The Kanrin Maru Goes Across the Pacific," by Masataka Chihaya, pp 4-18 May 1960, *Shipping & Trade News*, by permission of the Tokyo News Service, Ltd., Tokyo, Japan.

The carefree attempt was actually nothing but an outburst of haste to make up Japan's lag in naval arm. Since several years earlier, Japan had been visited by a number of Western representatives, including Commodore M. C. Perry of the U.S. Navy, to seek an open door to feudalistic Japan, which had been closed tight to the outside world since 1633. The Tokugawa regime issued an order in 1853 lifting a ban on building non-coastal ships, a ban which had strictly been observed for more than two centuries. At the same time the Shogunate decided to ask the Dutch mission at Nagasaki, which had long been the only foreign diplomatic outpost there, to help it build up a new navy.

In the same year, the Dutch Government made a present of the paddle steamer *Soembing* to the Tokugawa Shogunate and accepted a construction order for two corvettes from the Shogunate, an order which had been pending for some time.

The two corvettes were sister ships of 163 feet in length and 24 feet in width. Their tonnage was unknown, but estimated to be around 400 tons. Each wooden schooner was powered by a 100-horsepower steam engine and equipped with 12 guns. Their price was \$100,000 each, according to an old document.

They were actually the first two warships the Tokugawa Shogunate had ever acquired at any price. After arrival at Nagasaki, they were proudly renamed as the *Kanrin Maru* and the *Choyo Maru*. *Kanrin* means substantially in Japanese "making peace together," while *Choyo* means "morning sun." Incidentally, "maru," now well known as the ending word of Japanese merchant ships, was also used as the ending word of warships in the infant Japanese Navy.

IN THE MEANTIME, primitive naval training had been pushed ahead at Nagasaki, soon after *Soembing* was received as a gift from the Dutch Government. Officer candidates were selected from Samurai of Tokugawa and other lords, and sailors from boatmen of Shiakujima in the Inland Sea. Boatmen of Shiakujima had long been noted for engaging in the sea traffic in the important seaway connecting major islands of Japan.

The faculty of this "school" consisted completely of Dutch. Teachers and students had a lot of trouble with each other; worst among them was the language barrier, since all communication had to be made through Japanese interpreters.



CHOW TIME—Between raging squalls U.S. Naveymen joined the Japanese in their simple meals on the deck.

Officer candidates were mostly intellectuals, few of whom knew anything about navigation. The enlisted men knew something about navigation, though in their own way, but most of them were illiterate.

Officer candidates were reluctant to practice seamanship, which they thought was the sailor's job, while not a few were willing to learn drum-beating, which they believe, according to their school of tactics, belonged to the Samurai class.

But these obstacles could not discourage the burning zeal of the young students of Western navigation, and in the spring of 1857, about one year and a half after the training was started, they made a successful cruise on *Soembing*, then renamed as the *Kanko Maru*, from Nagasaki to Tokyo Bay by themselves. Those concerned in the Shogunate rejoiced at the early success. Only to see such accomplishment, the then money-tight Shogunate had spent great amounts to build up a new navy.

Efforts were spurred on to double-quick time. Another training center was established in Edo. At Nagasaki, an iron works was erected, which eventually developed into



Admiral Kimura Settsu-no-Kami



LT John M. Brooke, USN



Captain Rintaro Katsu



'HIJST HET GROOTZEIL' the Dutch order to set the top mainsail began voyage for U.S. and Japanese Navymen.

the present huge yard of the Mitsubishi Shipbuilding and Engineering Co., Ltd.

THE MAIN PURPOSE of dispatching a Japanese warship together with the American warship was to offer a chance at real ocean navigation to the just-hatched navy of Japan, although the head of the expedition was to be given the additional job of becoming an envoy in case of an emergency. All preparations for the venture had to be rushed, and the most immediate problem was the selection of a ship and crew.

The man who was picked as the head of the expedition was Yoshitake Kimura, Lord of Settsu, who had the official title of the Superintendent of Warships. Usually called Kimura Settsu-no-kami (his name card, procured after his arrival at San Francisco, read KIM-MOO-RAH-SET-TO-NO-CAMI), he was 31 at the time. Born as the son of a higher-class Samurai family, he had for some years been the chief superintendent of the naval training center at Nagasaki.

Rintaro Katsu was chosen to command the expedition ship. A progressive, Katsu had learned Dutch culture before he joined the new navy in 1855 at the request of the Shogunate, to master the Western naval technique.

In spite of his youth, Kimura was not reckless. Wisely, he judged the venture too risky for his inexperienced men and decided to ask help of the Americans.

When informed of Kimura's desire to have Americans on board the Japanese ship going to the U.S., Townsend Harris gladly arranged to have LT John M. Brooke, USN, and his men go with the Japanese.

Kimura recorded in his note concerning the venture that, "We asked for Brooke to go with us." He went on

to say that, "It was my great luck to have him go with us, he who had full knowledge of navigation, beside a gentle nature."

Yukichi Fukuzawa, who accompanied Kimura as his personal secretary, wrote in his autobiography that, "Every member of the crew was determined to take the ship across unassisted by any foreigners."

"The staff of the *Kanrin Maru* protested strongly," he continued, "since they thought having American navigators with them would cast a slur on their ability to sail."

THEIR PREPARATIONS were very simple, and interesting from the present standpoint, for such a cruise. Here is a list of some of their supplies:

Rice	372 bushels
Water	7766 gallons in 24 metal tanks
Candles	1500
Charcoal	200 bundles
Firewood	1350 bundles
Dried bonito	1500 pieces
Hogs	2
Chickens	60
Ducks	20
Coal	32,770 kilograms

The crew who manned the *Kanrin Maru*, now ready to go, consisted of 17 officers and 65 men under the command of CAPT Katsu. Besides these, there were young Admiral Kimura and 12 others, including his suite.

INCLUDED IN THE CREW was Manjiro Nakahama, who had had an odd life. Nineteen years earlier, he had been shipwrecked with four other fishermen and had gone ashore on an uninhabited island sound of Hachijo Island. After living in a cave for about five months, the group was saved by an American whaler, which took them to Honolulu. At that time a 16-year old boy eager to gain knowledge, Manjiro was taken to Fairhaven in the United States, where he was given an education in navigation and survey.

After growing up, he worked on whalers for four years before he ventured back to his long-missed home country in 1850. But the closed country was cool to the honest repatriate, and put him in a jail for several months. When Commodore Perry came to Japan in 1853, however, the startled Shogunate had to use Manjiro's invaluable talents for important work.

As the only Japanese who spoke English and was familiar with Western navigation, Manjiro was destined to play an important part in the enterprise being undertaken by the inexperienced Japanese and the Americans. He was 34 at that time.

On February 6, LT Brooke and his men boarded the *Kanrin Maru* to accompany the Japanese crew. His group included:

Edward Kern, artist and draftsman
Charles Rogier, ship's steward
Lucian P. Kendall, hospital steward
Charles Falk, instrument maker
Charles Smith, quartermaster
George Smith, seaman
Frank Cole, sail-maker
Axel Smedborg, seaman
Alexander Morrison, seaman
James Burke, cook

"HIJST HET GROOTZEIL!" As the order to set the main-top-sail was barked out in Dutch, the Japanese crew set out to mark the beginning of their first venture in crossing the Pacific, as the ship sailed out into the open sea.

Pitifully, however, the beginning was to end soon, as the sea became heavy. Brooke recorded in his diary that, "captain sick, diarrhea" and "commodore seasick,"—they kept themselves in confinement in their cabins. Many others were seasick too. Spirit and zeal alone could not win over the heavy seas.

The Japanese learned for the first time that one of the biggest enemies in the open sea was heavy weather, as the weather was even worse the following day. The ship plunged violently, taking in water occasionally. Some of the sails were split.

As the cruise entered its third and fourth days, the Japanese were gradually recovering from their seasickness, but Kimura and Katsu were still sick. Manjiro became not only valuable, but also a joy to the others, as he started to enjoy his renewed sea life. He made observations and amused others by telling them stories and singing songs.

On the other hand, Brooke had a real headache. He deplored in his diary, "The helmsmen do not know how to steer by the wind. They don't attend to weather braces and bowline."

Most of Japanese documents and writings concerning the cruise fail to describe in detail this stage of the cruise, but one of them covers it as follows:

"For the first time in my life did I learn the horror of living. All were dead pale, except the Americans, who talked and grinned." It goes on to say that the Japanese could not cook rice and ate, only once or twice, dried rice which was boiled during this period.

THOUGH THERE WAS NO SIGN of improved weather the ship nevertheless made its way very handsomely because of the prevailing favorable winds.

Brooke also complained about the carelessness of the Japanese crew toward fires, a fault which their Dutch



COMPLICATIONS — Celestial observation was difficult task for Japanese not accustomed to western numbers.

teacher had once attacked when a fire was started in the galley at night. "The Japanese sailors must have their little charcoal fires below, their hot tea and pipes of tobacco."

By that time, *Kanrin Maru* was entirely in the hands of Brooke and his men. Brooke said that his men steered the ship and also that, "The Japanese seemed to rely entirely on us."

"The commodore thanks me for taking care of the ship under these circumstances," his diary said. Kimura was still confined to his bed and so was Captain Katsu.

Though he was so young, 33 at that time, Brooke had deep sympathy for the Japanese. He wrote: "We must remember, however, that this is their first cruise, that the weather is heavy . . ." The full-bearded American captain even ate boiled rice and salt fish with the Japanese under the light of candles.

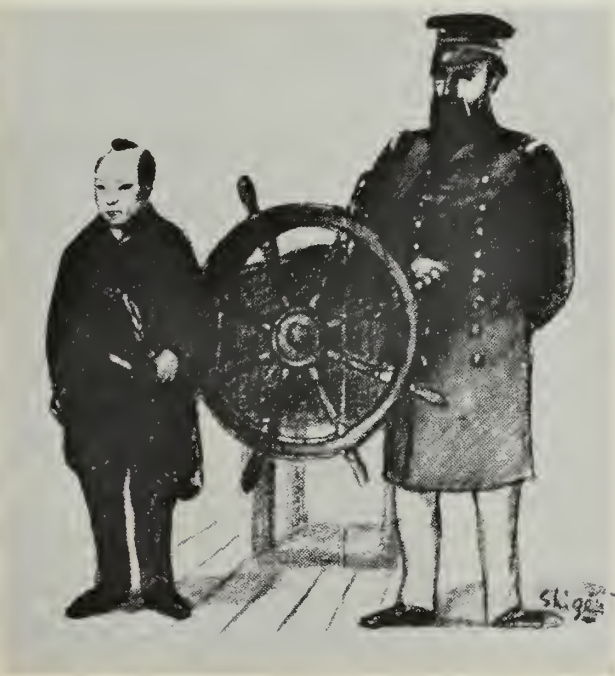
"This is a high old cruise. But I like the novelty. I shall endeavor to improve the Japanese Navy and will aid Manjiro in his efforts," he concluded.

On February 17, just one week after the departure from Uraga, the sea began to subside gradually. But the lull did not last long as strong winds blew in from SSE on the afternoon of the next day. The sea became very heavy again, as threatening clouds hung low on the horizon. As the night drew on, the wind increased to heavy squalls.

THAT NIGHT Brooke had hardly any rest. Obviously, the ship had been struck by a typhoon.

"Several times I thought the sails would leave the yard," Brooke recorded. "At 12 p.m. it rained in torrents, the air white." He could not be relieved until the wind changed to west. "I had hardly laid down before I was called again. Squalls heavy."

A few Japanese documents also record this incident. "With the intensified south wind, the heavy seas struck



and hammered on the deck of the ship all the time. All the sailors were exhausted and could not furl sails. The ship was lifted high before she plunged deep in the sea, as if she would go down at any moment. As all hatches were closed tight, quarters below were as dark as night."

Fukuzawa also recorded in his autobiography that, "When the ship keeled over on her side, I could see the top of big waves in the distance through the skylight from below." A listing of 37 or 38 degrees was not uncommon, he wrote.

One of the Japanese officers on board the ship disclosed in later days that "some of our sailors were so exhausted they wanted to go home." The officer, who later became a vice admiral of the Imperial Japanese Navy, even admitted that, "As it turned out, therefore, those American sailors who were on board the *Kanrin Maru* as passengers became a great help."

WHEN THE *Kanrin Maru* had entered the other side of the Pacific after crossing the Meridian on the night of February 24, the situation improved a great deal. The sun was out for the first time, after more than two weeks of cloudy and stormy weather.

The Japanese had made improvements in their navigation. One of the navigators was Tomogoro Ono, who had learned navigation before he entered the new navy in 1855. "Tomogoro is an excellent navigator. I am explaining Sumner's method to him," Brooke mentioned in his diary.

On the following day, a strange sail on the weather quarter gradually loomed up. When the *Kanrin Maru* hailed it after catching up, it turned out to be the *Flora* bound for San Francisco from Hong Kong.

After steering both ships to run together, Brooke and the captain of the *Flora* exchanged greetings, the latter commenting that, "The vessel sails very well for a steamer and a Japanese." To this, Brooke replied that "you must not let a Japanese vessel beat you!" Then, the *Kanrin Maru* rapidly drew ahead of the *Flora*, whose light still was occasionally visible during the night.

Though the ship was making the latter part of the voyage in good time, the situation was still unpromising so far as the Japanese watch was concerned. Brooke wrote, "it was necessary to keep a constant lookout myself and to have our men on watch."

Brooke then resorted to an emergency step; he called all his men and sent them below with orders to do nothing without his consent. He then informed the captain that "he should not continue to take care of the vessel unless the officers would assist." This trick worked. "The captain gave them a lecture and put them under my orders, and I sent my watch on deck," Brooke recorded.

With a moderate breeze, the ship made pretty good speed, six to seven knots under all sails.

THE EVENTFUL VOYAGE was nearing its end. The trip, which the Japanese had originally planned to make by themselves alone, had proved to be too much for them. They had had to depend entirely upon LT Brooke of the U.S. Navy and his men, whom they had regarded "just as passengers."

Brooke's men never tired of manning the ship against tremendous odds; they took the risks of furling the sails alone when the ship was hit by a heavy gale and all Japanese hands were seasick, and they never had any

trouble with the Japanese crew in working together.

The Japanese had learned a lot; most important is the fact that without LT Brooke and his men, the venture would have been impossible. They asked Brooke to arrange for eight of his men to accompany the ship back to Japan. Of this request, "Cole and Smedborg wish to go," Brooke recorded in his diary.

At dawn of March 17, a dim mountain top came in sight across the great distance toward the east through the morning mist. "That's California," the Japanese spoke among themselves. It was a big moment to all of them, for they had crossed the stormy North Pacific for 37 days finally to reach there. They had come at last as the first Japanese warship crossing the Pacific.

K*anrin Maru* switched on its steam from 8 a.m. to approach San Francisco. A Sun flag, the Japanese national flag, was proudly hoisted on the gaff and the pennant atop of the mainmast. In addition, the house flag of Admiral Kimura was fluttering on the jib boom. At that time, the ensign of the rising sun, which later became the symbol of the imperial Japanese Navy, had not yet been adopted.

After picking up a pilot, the weather-battered corvette entered into the bay entrance. When the Stars and Stripes atop a battery on the island was moved up and down to welcome her, the Sun flag of the *Kanrin Maru* was moved up and down three times to return the salute.

A short while after 1 p.m. the *Kanrin Maru* dropped anchor several hundred meters off the Vallejo St. Wharf. The historic voyage was concluded.

On that date, no ceremonies were conducted. Brooke took three officers and Manjiro with him to the shore to report the arrival of the ship. Many people crowded on the shore to see the strange ship from the Far East. A shore leave was also granted to sailors.

But that was the only day Admiral Kimura and his officers and men would have a quiet time in San Francisco. From the following day, they had to exchange an official visit with President Teschemacher of San Francisco, the Governor of California and various Army and Navy commands. Contrary to their lonely departure from Uraga port a little more than five weeks before, they were given a gala welcome by all the city.

ROUGH GOING—*Kanrin Maru* forges ahead through rough Pacific seas as Japanese make first ocean voyage.



THE JAPANESE were far more than just strangers. They had come straight from a land more than two centuries behind the United States. Everything they saw was strange, amazing, startling and wonderful to them. So were they to the citizens of San Francisco, who were seeing people from the long-isolated, mysterious country for the first time. What the Japanese thought of the American people and their customs, and vice versa, is an interesting subject, but it must be left for another tale.

One of the things about which Kimura felt concerned most after their arrival in San Francisco was how to repair the storm-hit *Kanrin Maru*. As it was agreed that the Mare Island naval yard would take care of her repairing, the corvette steamed out of port on March 23 and arrived at the yard on the afternoon of the same day. Brooke and Kern were on board the ship.

The repairing work at the yard was a big surprise to the Japanese crew. When the ship was put into a floating dock and the dock was floated, some described the scene as that "the dock was lifted up by some floating instrument and the ship came out of the water as if she were on land." There was no dock whatsoever in Japan at that time. When the *Kanrin Maru* had been given dock repairs in June of the preceding year, she had been put in the stream mouth at Uraga, which was then pumped dry.

The repair work on *Kanrin Maru* was very extensive; the main and foremasts were replaced; most of the sails newly procured, leaking planks replaced, and gears and engines checked or overhauled. New paint was applied throughout the ship.

THE U.S. NAVY did everything possible not only in repairing the first Japanese warship visiting the United States, but also in helping the Japanese learn. A three-story brick building standing next to the Governor's residence was provided for officers' lodging and a two-story house for sailors and others.

The Japanese were given full-hearted hospitality by the American naval officers and others, who invited them to their homes and took them to the blossoming-spring outskirts of the yard. On Sunday some were taken to church.

The most exciting moment for the crew during the repair period came when the *Powhatan* arrived in San Francisco on March 29 and the two Japanese groups were reunited on the following day.

Kimura records that "Shimmi, Muragaki, Oguri and others came to my billet to have a chat. Oguri and Morita stayed the night. I treated them by offering a bath and foreign liquor." Over 60 persons in the suite of Shimmi and Muragaki stayed the night on the island to talk about their experiences.

Kimura and Katsu were especially impressed by the sincerity of CAPT MacDougall of the yard in taking care of the repairing business of their ships. "The captain never tired, directing workers from 7 a.m. to 6 p.m. every day," Kimura wrote, "He was the very man who had most to do with the completion of the repairing work." Katsu also wrote: "Even when I told him he didn't need to tell me every detail of the repairing, he told me it was only because he believed that the captain of a ship should know every detail of his ship. Otherwise, how could he steer the ship in the event of danger? I was very much impressed by him."



CLOSE SHAVE — Japanese custom of having heads shaved aroused the curiosity of United States Navymen.

APRIL 2 WAS THE DAY when Kimura and others were to miss LT Brooke, to whom they owed so much in their reckless venture of crossing the Pacific. He and his men, except some who had agreed to accompany the return trip of *Kanrin Maru*, were going to take a mailboat from San Francisco soon.

Several days earlier, Admiral Kimura invited Brooke to his cabin and offered him as many gold coins as he pleased from his private treasure boxes. Brooke refused to accept, however. Kimura's offer must have stemmed from his deep appreciation for Brooke's full-hearted cooperation with the Japanese which had made his risky mission successful.

Kimura had also been worrying about how to pay the repair expenses on *Kanrin Maru* for some time. The Japanese did not yet know the credit system at all. To his inquiry about that, Kimura was handed a letter from Admiral Cunningham on April 24 to the effect that "the expenses of repairing the *Kanrin Maru* are requested to be held pending until further notice, since it is considered to be a present from the United States President to the Emperor of Japan." But even this answer hardly eased Kimura's worry.

After five weeks' hard work, *Kanrin Maru* looked like an entirely new ship. The Japanese crew was satisfied and pleased.

On the morning of May 8, *Kanrin Maru* steamed out of San Francisco for the return trip through Honolulu. Five American navymen accompanied the ship. After exchanging a gun salute with the island fort in the bay, the ship entered the Pacific and set her course at SSW under the new sails, favored with the northwesterly wind.

On June 22, after a 26-day-long uneventful trip from Honolulu, the *Kanrin Maru* entered Uraga and dropped anchor. The first Japanese attempt to cross the Pacific, over four months' long, was over.

TAFFRAIL TALK

AT ALL HANDS, as it does all over the Navy, Seavey-Shorvey takes its toll—and in mid-July the bell tolled for Chief Journalist H. George Baker, a news desk mainstay since June 1956.

George is now applying his nose for news, and his furious energy to the cause of good reporting as a feature writer for "Stars and Stripes," European Edition. He operates out of "Sand's" headquarters in Darmstadt, Germany, but will no doubt be clattering all over Europe in search of Navy news items. If you should run into him, do it gently—physically, as well as artistically, George left a large pair of shoes to fill.

Fortunately for us, Baker's relief comes equipped to walk a mighty wide path himself—in the writing field, that is.

Returned for a second stint as an ALL HANDS staffer is Master Chief Journalist William J. Miller. During his first tour here (1951-1953), Bill was still a Chief Quartermaster, USN. Since then he's served aboard the attack cargo ship USS *Alshain* (AKA 55); at the Naval Support Activity, Naples, and on the staff of Com-SubLant. Along the way he converted to Chief Journalist in 1955, and became his rating's only E-9 in 1958.

A former gold medalist in the enlisted essay contest conducted by the Naval Institute, Bill has also applied the knowledge gained over 21-plus years of naval service (more than 13 of them sea-going) to contributing about 35 per cent of the work involved in the two latest editions of the (1957 and 1960) *Bluejackets' Manual*.

You'll be reading features with Bill Miller's byline frequently in upcoming issues, and we're sure you'll look forward to them as much as we do.

★ ★ ★

It just goes to show that it frequently takes a crisis to bring out an individual's true worth. Consider, for example, the crisis faced by Roger L. Mort, SN, of Key West, Fla. Mort, who just happens to be attached to the public information office, was dispatched to a ship which shall be nameless to deliver a message to one of the ship's officers.

After giving a sharp salute to the ship's ensign and the OD, he was given permission to come aboard—just as it says in the books. What happened next was not to be found in any book, however.

A PO2 immediately took over and told him to snap to and stand at attention in the ranks. Unknown to Mort, he had arrived about five seconds before a commodore's inspection. He took his place just in time to be reviewed by the commodore as he passed down the line.

How did Mort make out? 4.0, of course.

★ ★ ★

Periscope tells us of the reception received by the numerous new hands assigned to USS *Pomodone* (SS 486) to replace those sent to new construction and the FBM program. As they reported aboard, they were greeted with this message: "We're sure that you'll enjoy your tour aboard *Pomodone*. If you have taken time to read this, you're two months behind in your qualifications. Get busy."

★ ★ ★

Now, if you've gotten this far, will you kindly pass this issue on to the next man on the list.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch of home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS

The Bureau of Naval Personnel Information Bulletin, is published monthly by the Bureau of Naval Personnel for the information and interest of the naval service as a whole. Use of funds for printing of this publication is approved by the Director of the Bureau of the Budget 25 June 1958. Opinions expressed are not necessarily those of the Navy Department. Reference to regulations, orders and directives is for information only and does not by publication herein constitute authority for action. All original material may be reprinted as desired if proper credit is given ALL HANDS. Original articles of general interest may be forwarded to the Editor.

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• AT RIGHT: SEEING THE WORLD—Navymen from aircraft carrier USS Franklin D. Roosevelt (CVA 42) snap photos of the Eiffel Tower while on liberty in Paris, a 'must' on every Navyman's list.



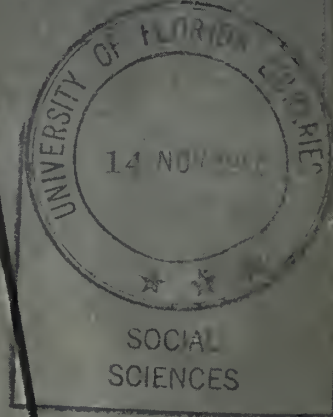


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RESPONSIBILITY

ALL HANDS

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for 10 readers. All should
see it as soon as possible.
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NOVEMBER 1960



ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

NOVEMBER 1960 Nav-Pers-O NUMBER 526

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The Chief of Naval Personnel

REAR ADMIRAL A. E. LOOMIS, USN

The Deputy Chief of Naval Personnel

CAPTAIN F. R. WHITBY, Jr., USN

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• **FRONT COVER: THE EYES OF TARTAR**—Destroyermen check over fire control radars that guide Navy's Tartar surface-to-air missiles from the launchers of USS Charles F. Adams (DDG 2). Tartar destroys low and medium altitude targets.

• **AT LEFT: SLUMBER TIME**—The setting sun highlights the sails of submarines nesting at pier side in Norfolk Naval Shipyard as their crews knock off work and get ready for in port night routine.

• **CREDITS:** All photographs published in ALL HANDS are official Department of Defense photos unless otherwise designated.

THE BLUE AND GOLD

On 16 Sep 1960 this dispatch was sent to a Navy ship in the Pacific:
"FM COMSUBLANT

TO USS PATRICK HENRY

A SIGNIFICANT POINT IN NAVAL HISTORY IS RECOGNIZED ABOARD PATRICK HENRY TODAY X FOR FIRST TIME ONE COMPLETE CREW RELIEVE ANOTHER WITH RELIEFED CREW REMAINING ATTACHED TO THE COMMAND X TO CAPT BOB LONG AND YOUR GOLD CREW I SEND MY COMPLETE CONFIDENCE THAT YOU WILL CONTINUE THE SPLENDID RECORD ALREADY ESTABLISHED BY CAPT HAL SHEAR AND HIS BLUE CREW X VADM GRENFELL"

Here is the story of the planning and preparation that led to the establishment of the "blue and gold crews," and what a man who is assigned to these crews can expect.

NO MATTER HOW YOU CONSIDER them, the Navy's new Fleet ballistic missile submarines are something special. Mechanically, electronically, operationally, and strategically—they are in a class quite by themselves. In personnel matters the SSBNs are unique, too. For they are the first Navy ships to have two crews on a regular basis.

One crew is the Blue Crew. The other is the Gold Crew. Each crew comes under its own commanding officer. Both crews do not, of course, man the ship at the same time. In-

stead, one crew takes the submarine on patrol while the other is in training and on leave. Then they rotate.

They rotate when the SSBN returns to its tender, wherever the tender may be based. After a turn-over period, the just-relieved crew heads for its home port.

Though it is a submerged patrol, life aboard the submarine is anything but dull. The on-watch section has under its charge a ship that embodies the very latest technical advances and is designed as no other ship has ever been.

Considered in another light, the watch section of a 110-man crew—a group of about 30 to 35 men—has the immediate responsibility for more than \$100 million worth of ship. Comes out to upwards of \$3 million per man.

DURING THE OFF-WATCH, the crew enjoys a sort of "free time" that can be used in many ways. In the SSBN program much emphasis has been placed upon the SSBNers' getting the most benefit out of this time. While part of it is devoted to off-duty training and study, another part goes to recreational matters and physical conditioning.

So much for a quick look at the on-patrol portion of the SSBNers' life. Off patrol the pattern is quite different. Leave is granted and "re-

habilitation" is a big item. (It means, in this case, organized athletics, physical examinations, recreation and medical care.) The main activity during the off-patrol period is, however, training. One important item—submarine pay continues during the entire (several weeks long) off-patrol period.

THE SSBNER ON PATROL — At the present time the length of the SSBN's patrol varies. Generally the patrol lasts about two months. Two-month patrols are nothing new to the Navy. Witness the World War II submarine operations and, more recently, work with *uss Nautilus*, SS(N) 571, and *Seawolf*, SS(N) 575.

With the SSBNers it is not a simple matter of on-patrol, off-patrol. There is the turn-over period at the tender, and the time spent in traveling from the tender to the home port. The subject of ports brings up another matter in which SSBNs differ from other ships. The strategic concept under which they operate may not allow for such visits.

Just before leaving for patrol—and also upon their return — SSBNers have special pay days. Crew members are encouraged to register allotments for their dependents, which rules out the need for drawing advance pay before departing. Pay

SOMETHING SPECIAL—Navy's Fleet ballistic missile submarines are unique in many ways, including double crews.



TEAMS

accounts are, however, carried on board; for it is to a man's advantage to have his records and accounts accompany him.

Just as with other Navy crews, a specific person fills a specific billet within each crew. In other words, Mike Missile, QM1, of the "Blues" would be the replacement for Dick Dolphin, QM1, of the "Golds." This being the case, a man on patrol might well ask: "What if my replacement doesn't show up?"

Well, that's like asking: "What if I get left topside when the ship dives?" It could happen but it's quite unlikely. Actually, administrative steps are in force to keep the likelihood of such a happening to a minimum. Further insurance is provided by the men of the training allowance of each crew (about 10 per cent). In most cases one of these men could take over the billet. But, if after all this, a man does have to turn his hat right around and go out on another patrol, he would upon return stateside be given the maximum leave possible.

During the patrol period, no mail is sent or received. As for taking emergency leave while the ship is on patrol—the possibilities are mighty slim. But let's look at what can be done. The Navy has always looked out for its own. This includes the Navyman's family, particularly in an emergency. In addition to providing detailed and timely information, the Navy will take steps to render what assistance it can to the family. In line with this a "PAC" (Personnel Assistance Center) is being established at the home port. PAC will be manned by permanent duty personnel and will provide assistance and support to the families of submariners.

QUITE A LOT OF EFFORT has been made in the matter of recreation while at sea. The recreational program is a varied one. Libraries are of three types. First, the usual shipboard "Lending library" type, with both fiction and non-fiction selections. Second, a tape library for tape recorders. Here are tapes ranging from religious programs to popular TV shows. Third is the hi-fi record library.

Physical conditioning hasn't been



LONG CRUISES like one made by crew of USS Triton, SSR(N)586, shown above, and other nuclear sub helped set pattern for on-station cruises.

overlooked. A two-man gym features exercise items. Hobbycraft kits (such as leatherwork and model building) and game kits are provided. In the mess compartment one or more of the mess tables are of the type that can be quickly turned into a combination shuffleboard table and small-duckpins table. Other mess tables have game boards permanently inlaid in the table tops. SSBNmen are able to keep up with world events through the periodic reception of news broadcasts.

Chaplains will not normally go on patrol. But that's not to say that provisions for divine services have been overlooked. Officer or enlisted crew members serve as religious lay leaders. Chaplains of the Submarine Force, U.S. Atlantic Fleet, provide pre-patrol guidance for the lay leaders and also provide such ecclesiastical aids as hymnals, devotional guides, altar cloths, tape recorded sermons and religious music, and on-film sermons given by leading clergymen.

Time off-watch during patrol offers good opportunities for training and study. Tests and courses such as USAFI courses and Navy training courses are available for self study.

AS WITH OTHER SUBMARINES, there is considerable cross training in the SSBNs. (Cross training enables a man in one rating to learn quite a bit about parts of another rating.) It has been said that the SSBN ships'

companies are the Navy's most highly trained crews. Here is a situation very favorable to those thinking about changing to another rating in the program. Incidentally, the same change-in-rating opportunities that exist for other Navymen also hold true for SSBNers. Cross training does not end with the patrol but is also carried out during parts of the off-patrol period.

The *Polaris* Program has a very high priority, it is true. And the need for top talent in the enlisted grades will be strong for a long time. However, full opportunities are provided in the matter of recommendations and applications for such enlisted-to-officer programs as NROTC, USNA, LDO, NESEP and Regular Navy Integration.

During patrol periods, SSBNmen are able to give their blues and whites and even their dungarees a rest. Fact is, they don't have to take many of their regular "sea bag items" with them, but stow them ashore at the tender.

Some quite interesting special clothing has been developed. First there is the cover-all, a one-piece outer garment made of dacron and cotton. Undershirts are of orlon and cotton. Drawers are made of dacron and cotton and the stretch socks are of nylon and cotton. Light in weight, slight in bulk, rugged in construction, and quick to dry, these drip dry clothes will be issued on a "special clothing basis" rather than as individually owned clothing.



POLARIS TECHNIQUE—Instructor points out how to load *Polaris* missile on sub.

At the end of the patrol the SSBN will surface and move into position alongside the submarine tender. Then, following the turnover period, the off-going crew will be airlifted to its home port.

THE SSBN OFF-PATROL—The SSBNs will not return to their home port. The crews will, though.

First we'll deal with the ship. Between patrols the SSBN will be with its submarine tender. After several patrols the ship will return to its overhaul yard for any major repairs and overhaul work. The first nine SSBNs will have New London, Conn., as their home port. For overhaul yards, initially some will be assigned to Portsmouth, N.H.; others will be assigned to Charleston, S.C. The tender will not necessarily be based either at the home port or overhaul yard.

During overhaul the ship may be tied up for some months. Chances are that during this period some crew members may go to new construction SSBNs while others will go to shore duty. But all this is pretty much in the future, and plans, as they say, "have not yet been finalized."

Leave, rehabilitation and training are the three main activities during the off-patrol period. On an average, the first month of this period will consist of 15 days' leave time and 15 days' "rehabilitation." The term is used here in its milder sense. Or-

ganized athletics, physical examinations, recreation and medical care . . . these will be the rehabilitation.

As for leave, it looks as though over a one-year period there will be two leave periods, each of about 15 days. In certain cases it is likely that as much as 30 days' leave may be granted at one time instead of 15 days. Leaves will normally be of the type known as "annual leave."

AN "FBM TEAM TRAINING FACILITY" (or Team Trainer) is located at the U.S. Submarine Base, New London. (Another Team Trainer will be at Charleston.) Here are located different types of training devices—some quite advanced and elaborate. Here will be provided formal training and refresher training, plus school-of-the-boat training. All hands will work out here for certain periods. Later, those in the weapons system will continue to train here. At the same time, however, other men—especially those in the nuclear system—will take their training in classrooms and laboratories in other parts of the base, devoting their main efforts to "operational and maintenance training."

SSBNmen who desire even further *Polaris*-Program training (beyond that already discussed) during the training period have the chance to apply for a course of instruction at a factory school or Navy school.

Commuted rations will not be drawn during this period, for sea

pay will continue, and both cannot be drawn at the same time. Further, as a result of recent congressional action, submarine pay continues during the entire off-patrol period.

THOUGH SOME GOVERNMENT HOUSING does exist in the New London area and though some civilian housing is available, it is still inadequate and the government is taking steps to increase the amount of Navy housing.

In March 1960 construction began on a 500-unit Capehart family housing development and it is expected to be completed some time in 1961. Construction of a second 500-unit development will begin early in 1961 and a third 500-unit will begin later in 1961.

To summarize, the present housing situation is fair to good, and the chances of a man in the *Polaris* Program moving his family into government housing are improving all the time. The situation on schools and shopping facilities is keeping pace with the housing situation.

TRAINING AND CAREER PLANNING—The Navy's Seavey/Shorvey program has a very strong bearing on all career planning matters, and SSBN crewmen will also be covered by Seavey/Shorvey. One special provision of the Seavey provides ConSubLant and ComSubPac the authority to retain on sea duty those qualified submariners who desire to stay on a submarine — including an SSBN.

Another career provision is being developed. It deals with the assignment of experienced SSBNers to a normal tour of shore duty. In this, many men would remain in the program by being detailed to a shore duty location within the overall *Polaris* Program. Here again, the fact that a man is in the weapons system or the nuclear system would have a lot of bearing on the location.

Weaponers could look for possible assignment to one of the following locations:

Naval Weapons Annex, Charleston, S.C.

U.S. Team Training Facility, New London, Conn.

U.S. Team Training Facility, Charleston, S.C.

Guided Missile School, Dam Neck, Va.

Polaris Material Office, Charleston, Va.

Naval Ordnance Test Unit, Patrick AFB, Cape Canaveral, Fla.

The following locations would be *Polaris* Program shore possibilities for men of the nuclear systems:

Nuclear Power Training Unit (prototype plant) at Schenectady, N.Y.

Nuclear Power Training Unit (prototype plant) at Idaho Falls, Idaho.

Nuclear Power Training Unit (prototype plant) at Windsor, Conn.

Nuclear Repair Activity, Pearl Harbor.

Nuclear Repair Activity, New London.

Nuclear Power School, Mare Island.

Nuclear Power School, New London.

In a few years, when the *Polaris* Program is well underway, there will be many more sea billets than shore billets. Even now the former outnumber the latter; and some of the above locations are still in the blueprint stage. As time goes by, chances of getting one of the above locations will decrease—with a corresponding increase in the chances of drawing shore duty of a "general Navy" nature. Still and all, the man who so desires will have a good chance of spending the remainder or most of the remainder of his Naval career in the *Polaris* program.

SSBNmen will, in many cases, not spend their sea duty time assigned to just one SSBN. With the great amount of new construction, the chances of a man's being assigned from an operational *Polaris* submarine to the pre-commissioning detail of a new one will be most excellent after two patrols. However, at least one year's service in an SSBN crew is required before transfer.

Since the program is a growing one, the chances of an SSBNer's being transferred soon to a ship type other than an SSBN are too small even to think about.

"WHERE WILL MY RELIEF COME FROM?" — That's a question asked by many present SSBNmen. (Now don't confuse "relief" with "replacement." The former is the man who will specifically relieve him within his own crew; the latter is the man who replaces during the turn-over of crews.)

Each crew will have its own additional training allowance—about 10 per cent of the regular crew. These men will form a main source of "reliefs." Then, too, new men from other types of submarines—and directly from the Basic Submarine School at New London—will enter

the picture. All these, of course, will one day serve as reliefs.

Earlier, mention was made of enlisted-to-officer promotion opportunities. The chances of an ex-enlisted SSBNer's remaining in the *Polaris* Program are very good. Some of these officers could expect one day to serve in SSBNs.

Other sea duty billets in the program would be aboard *uss Compass Island* (EAG 153), *Observation Island* (EAG 154), *Proteus* (AS 19) or the new construction FBM submarine tender. Some specific shore duty spots to which they might be assigned are the already-listed *Polaris* Program shore duty locations.

Men qualified in SSBNs have an entry to that effect made in their service record. Further identification with the *Polaris* Program is through the assignment of Navy enlisted codes of the "9900" series to especially qualified men of certain ratings

FROM "A" TO "U"—"A" in this case stands for Application for the *Polaris* Program; "U" stands for Underway. Here's the story.

Before a man can become an SSBNer, he must first be a submariner. That's not to say that in all cases he has to be a qualified submariner with an "SS" after his rate. But he must have at least completed

the Basic Submarine School at New London. (More complete details about applying for this eight-week-long course may be found in the January 1960 *ALL HANDS* (p. 31); and also in chapter 10 of the *Enlisted Transfer Manual*.) The school is open both to qualified non-rated men and rated men.

In addition to being a submariner there are certain other qualifications. The main ones are as follows:

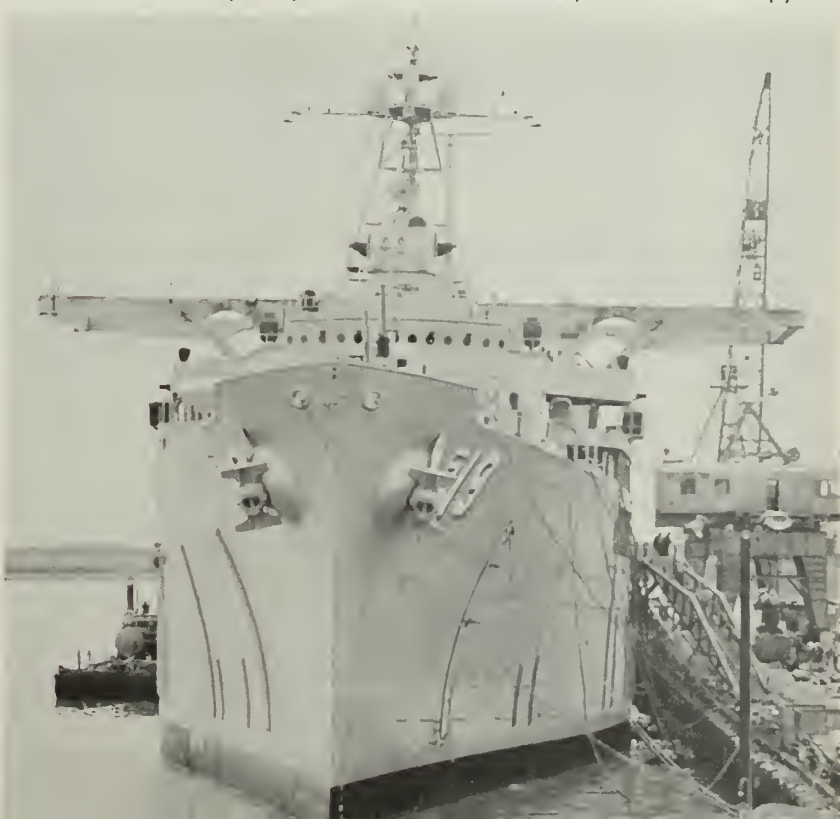
- **Obligated Service** — For those who would not receive advanced training: 24 months from the date of reporting ("for commissioning and fitting out") to the particular yard where the submarine is being built. For those who apply for advanced training other than the Submarine Nuclear Power Class: 24 months from date of starting the course of instruction. Those who apply for the Submarine Nuclear Power Class must, however, have 40 months "oblivion" from date of starting the course.

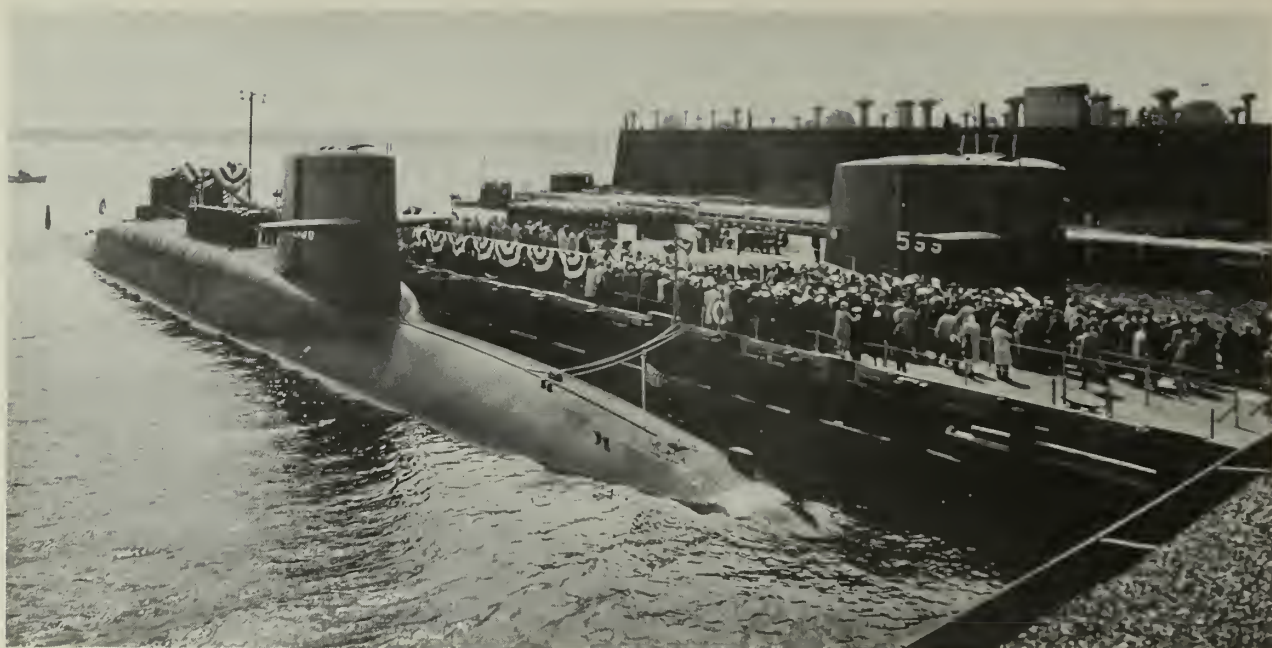
- **Security Clearance**—Must be eligible for SECRET.

- **Seavey/Shorvey**—Must not be on the current Seavey. However, those men "extended off" the Seavey by ComSubLant or ComSubPac are also eligible.

- **Ratings**—Rated men must be in one of the following ratings: QM, ET, RM, SO, TM, FT, ET, GS, IC,

BLUE AND GOLD crews will change over when sub comes to tender. Here, *USS Proteus* (AS 19), Navy's first *Polaris* sub tender, is readied in shipyard.





ONE AND TWO—USS George Washington, SSB(N) 598, and USS Patrick Henry, SSB(N) 599, are now with Fleet.

EN, EM, MM, HM, CS, YN, SK, SD. (Not all pay grades of these ratings are eligible. Though seamen and firemen will also man the SSBNs, they will be selected from graduates of the Basic Submarine School.)

THE COMPLEXITY OF THE SSBN requires a lot of skill and training from its crew members. Equipment on these ships is quite different from that of any other type ship. This

means that great stress is put upon training for future SSBNers.

This training can best be viewed from a pre-underway viewpoint. During the period between the ship's commissioning and the time she gets underway for her deployment run, many crewmen will be away from the ship taking advanced training.

Advanced training is of two general types. First, training in the weapons system. Second, training in

the nuclear system. (Among the rated crewmen, only YNs, SKs, SDs and CSs are *not* required to take advanced training.)

The SSBN's weapons system has more to it than "just firing the missile." The ship's position must be precisely known; the word to fire has to be received; the missile has to be in perfect shape for firing.

Men who receive advanced training in the weapons system are in the following ratings: QM, ET, RM, SO, TM, FT, ET, and GS. (Certain other ratings of the submarine tender's repair department also receive this training.) In general, men of the above eight ratings receive advanced training as follows:

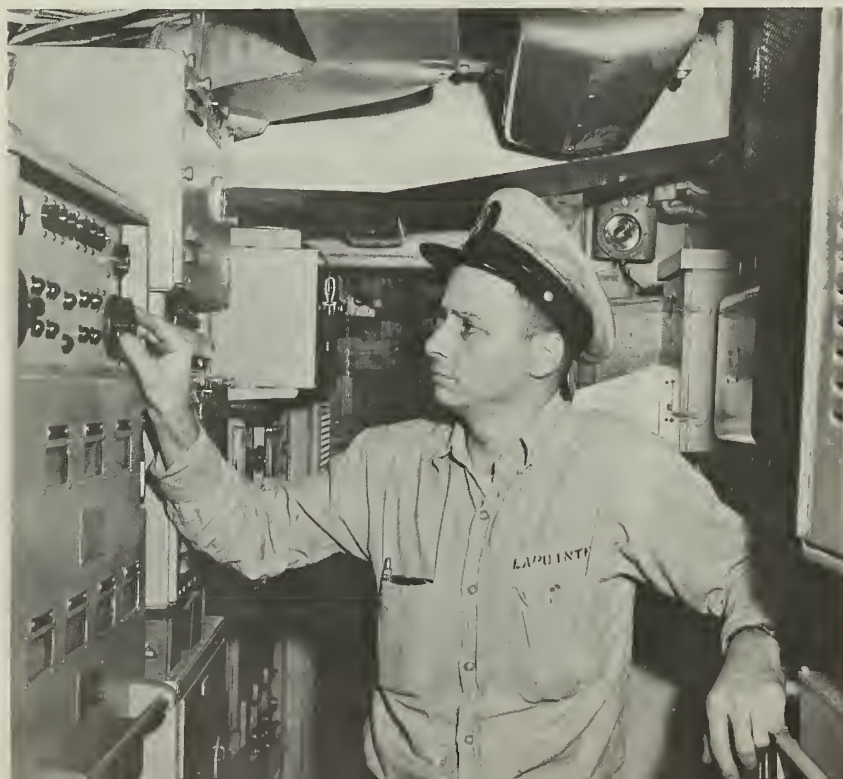
- QM—Five weeks at the Guided Missile School, Dam Neck.

- ET—Those going into the weapons system receive from six to eight months' training at Dam Neck. A part of this training may be of the factory school type on the East Coast or West Coast, depending upon the type of gear to be studied.

- RM—Communications and electronics training varies. The minimum that an RM can expect is eight weeks at Dam Neck. Other training might include crypto, teletype and other special electronics training at a factory course or at the Submarine Base, New London. Generally, the more senior the RM, the greater the amount of advanced training received.

- SO—Eight weeks at Dam Neck,

ON STATION DOWN UNDER—Nuclear submariner stands watch on cruise.



plus special training either at the Submarine Base, New London, or at a factory school.

- TM—Twelve weeks at Dam Neck.

- FT—Fourteen weeks at Dam Neck; followed by 12 weeks at General Electric's "Missile, Guidance, and Fire Control Course" at Pittsfield, Mass.

- GS—Fifteen weeks at Dam Neck; followed by 12 weeks at Pittsfield; and then two weeks at Dam Neck.

Training in the nuclear system would be chiefly concerned with the SSBN's nuclear power plant. Those ETs, who would be assigned to the ship's nuclear system, plus ICs, ENs, EMs, MMs and HMs, receive about six months of formal training at the Nuclear Power School in all but a few cases.

In addition, they receive further advanced training at a Nuclear Power Training Unit (prototype plant) for about six months. These prototypes are located at Schenectady, N.Y.; Idaho Falls, Idaho; and Windsor, Conn. Certain key rates finally get five weeks' further training at Pittsburgh, Pa.

The "all but a few cases" mentioned in the above paragraph refer to this: Each SSBN will have a small number of ENs and MMs designated as "auxiliaries." These men will service and operate the systems that support the weapons system and the nuclear system. Therefore they will not attend the Nuclear Power School.

TMs may wonder if they couldn't be assigned to an SSBN and work only with the ship's torpedoes, which (they might reason) would not require 12 weeks at Dam Neck. The answer is "No!" All TMs receive advanced training in missile ordnance and launching.

The elapsed time between application for advanced training and receipt of orders varies with the needs of the program. Normally it runs from one to six months.

THAT'S THE BRIEF WORD on advanced training. In the main, it is individual-type training — as compared with group-type training. Although this training is usually completed before the ship's commissioning date, some of it carries through even during the ship's ready-for-sea period.

Cross training, discussed earlier as an underway function, is also carried out during shore-side or in-port periods. Scope of this training depends



ON LAND—Shore duty possibilities will be limited for SBNers and most will be at nuclear and weapons training centers such as this unit in Idaho.

upon the man's billet in the submarine. Some ratings get cross training at Dam Neck and at some of the factory courses. Additional cross training is given during the ship's pre-commissioning and ready-for-sea periods and, finally, at the Team Trainer.

The number of SSBNs now in commission is small. The SSBN-building program is going ahead at a good clip, however. Which means

that in the next few years thousands of men will be getting orders for new construction. The date of reporting is always an important item in a man's naval service. Generally, the first crew ordered in reports to the building yard about six months before the ship's expected date of commissioning. The other crew reports about three months before commissioning.

—Wm. J. Miller, JOCM, USN.

THE BEST possible facilities for off-duty relaxation under the sea have been built into FBM subs to ease the crew's confinement while on station.





Stand-In for Polaris

BEFORE YOU GO AHEAD with the real thing it's often best to make a practice run. Especially so when the cost of the real thing—the *Polaris* missile, in this case—runs in the hundreds of thousands of dollars.

Four months before *uss George Washington*, SSB(N) 598, made its first successful firing of *Polaris*, it was firing LTVs (launch test vehicles). By first firing these *Polaris* look alikes, the reliability of the submarine's launching system was proved.

LTVs are similar to *Polaris* in

POLARIS LTV pops out of the sea.



many respects, including configuration, size and weight. However, they do not carry missile fuel; therefore they do not ignite after launching. Nor do they carry nuclear warheads.

As part of the Navy's efforts to cut costs without delaying the testing schedule, the LTVs had to be recovered. But when the seas are running high, the deck is heaving like a roller coaster and the footing is slippery—the problem of recovering a 28-foot, 15-ton object is not a small one. Topnotch seamanship is the only way to tackle the problem.

The task of working out recovery procedures had, some time ago, been given to the submarine rescue vessel *uss Sunbird* (ASR 15). *Sunbird*, based at the Submarine Base, New London, Conn., is a unit of Submarine Squadron Two.

Because of *Sunbird's* success, *uss Patrick Henry*, the Navy's second SSBN, is able to launch the same LTVs that had been launched by *George Washington*.

First step in the process was to convert *Sunbird* physically from a submarine rescue vessel to a missile recovery ship. Next, most rescue

equipment was removed—the submarine rescue chamber, mooring buoys and three salvage anchors.

A wire mesh net "parbuckling system" was then installed on *Sunbird's* superstructure. One end of the net is connected to the side of the ship and the other end, which is movable, is supported by the ship's main boom. The parbuckling system is the key to the recovery. Here the net is lowered over the side of the ship. The ship then maneuvers alongside the LTV, which is then eased into the net. When the LTV is centered in the net, the main boom takes a strain on the far end of the net, easing the LTV out of the water and up and over the side of the ship. Then the LTV is eased onto a specially built rack-track running fore and aft along the main deck.

The LTV has two parts, the main body and the nose cone. Upon being launched, the main body clears the surface by a few feet and then settles back into the water, where it floats. The nose cone, however, goes shooting skyward. After reaching its maximum height of a few hundred



UPS AND DOWNS of a Sabot firing is shown in photos from left to right.

feet it then begins its descent and releases a self-contained parachute which slows it down.

Recovering the floating nose cone calls for the use of a grappling hook. A *Sunbird* crewman throws the grappling hook so that it will snare the shroud lines of the parachute. Then the load is taken by the cargo hook of the main boom and hoisted aboard.

The design and construction of *Sunbird's* gear was completed at the Long Beach (Calif.) Naval Shipyard and the concept for the gear was originated by Special Projects Office and BuShips.

A complete set of equipment for the recovery of six LTVs was manufactured and shipped to *Sunbird*. It was installed by the Engineering and Repair Department of the New London submarine base. After its installation, there came working-load tests and dockside trials.

No LTVs were available for testing, however. So a huge redwood log was used. Really huge, it was about 23 feet long and weighed 10 tons. Recovering the log in calm weather went smoothly. But when the log was taken to sea in high winds and rough weather a minor defect of design became a major

headache for the Navy crews.

At speeds necessary for steerage-way in heavy seas, the net had a tendency to be pushed out of shape by its speed through the water. *Sunbird's* chief boatswain came up with the answer: Lace a length of one and one-half inch chain to the forward end of the nets. It took time, but it solved the problem.

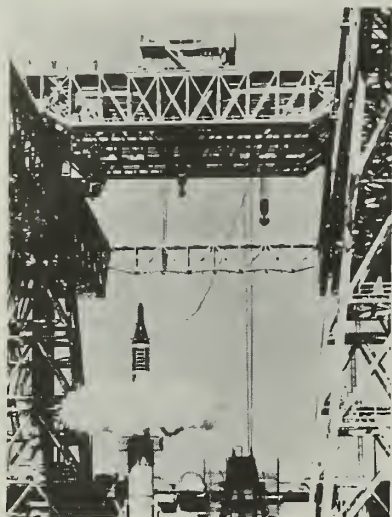
With this bug worked out, *Sunbird* now turned to the problem of deck organization. Job studies were carried out to reduce the number of men on deck during recovery. After numerous trial runs, 11 positions were determined. By a system of free substitution, *Sunbird* soon trained enough crewmen to form recovery teams.

Good progress was being made, when the word came that the number of LTVs to be recovered was being increased from six to eight. Two more stowage cradles were made at the Naval Weapons Plant, Washington, D.C., and installed aboard *Sunbird*.

During this period, final weight and movement calculations were run off. Also, a weight removal plan was started to compensate for the 60 tons of vehicles and more than 15 tons of recovery gear that were required.



Polaris Ejection System: A Product of NAEFSI



LAUNCHING tube blasts out *Polaris*.

September's ALL HANDS carried a lengthy account of the first launching of a *Polaris* missile from a submerged submarine. That spectacularly successful test-firing was the culmination of upwards of four years of hard work for a lot of people. Among them was the crew of the Naval Air Engineering Facility (Ship Installations) laboratories in Philadelphia.

When *Polaris* roared off down the Atlantic Missile Range last July 20th, the eyes of the world were focused, almost exclusively, on the star of the show—the missile itself.

Most of the remaining plaudits were reserved for the FBM submarine *George Washington*, with relatively little thought given to the submarine's launching system, which had started the missile on its way. Understandably so, too—the less glamorous, behind-the-scenes items rarely excite much attention. Yet it's safe to say that without a workable launching system, there would be no Fleet Bal-

listics Missile weapons system.

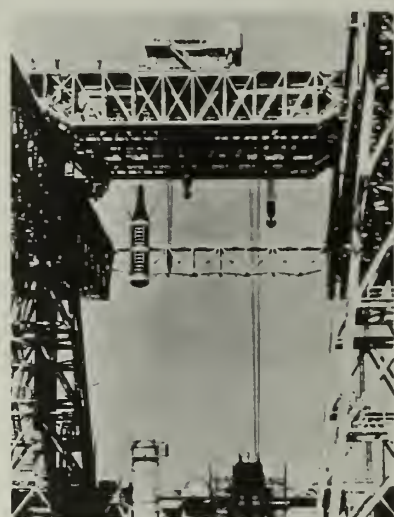
Thus it's not surprising that NAEF(SI) scientists and engineers got a special boot out of *Polaris*' July 20th performance. The missile's launcher ejection system was their baby.

NAEF(SI), one of five research and development components of the Naval Air Material Center, Philadelphia, first got into the *Polaris* business in January, 1957, when RADM William F. Raborn's Special Projects Office asked for help in creating a missile launching system.

At that time, there was not even a clear-cut idea of what the final configuration of *Polaris* would be. About all that was known for sure was that, if possible, the missile would be solid-fueled, and comparatively small. So, practically from scratch, NAEF(SI) technicians conceived a launching system, and designed and helped manufacture the entire power plant, including its control system. It was, basically, the same system and plant which some three and a half years later was to send a *Polaris* prototype hurtling out of *George Washington's* innards and up through the Gulf Stream waters off Cape Canaveral.

Initial testing was accomplished at a surface installation called "Pea-Shooter" at San Francisco Naval Shipyard, and, a little later, from an underwater tube off San Clemente Island, known as "Operation Pop-up."

Most of the first tests (see page) were admittedly crude efforts in a new field—and NAEF's testers weren't above firing everything but yesterday's laundry into the air to find out what they needed to know. Redwood logs, sawed-off telephone poles and concrete-filled boiler-plate cylinders were among



BIG CATCH—*Polaris* dummy caught.

the objects that were put to use.

Later tests utilized concrete-filled dummies with highly instrumented nose cones. With a little ingenuity, NAEF engineers came up with a couple of items which payed off in huge savings of both time and money. Many test vehicles were extremely fragile structures, and some were loaded with nearly a million dollars' worth of instruments. Allowing them to fall back onto land or water and be smashed to bits would have made *Polaris* testing a much more costly process. Through the use of a mid-air recovery system of their own design, which consisted, basically, of wire loops slung from the arms of large cranes, they were able to snag dummy missiles at the top of their climb and lower them down so that they could be fired over and over again.

Installed on land at SFNS, this recovery system was known as "Skycatch," while its sea-going version at San Clemente Island was called "Fishhook."

Some time before actual operations began, the subject of deck seamanship was re-stressed. To make sure that all hands were ready for the job, special training was carried out. Each man rehearsed his part until he became letter-perfect in his particular job.

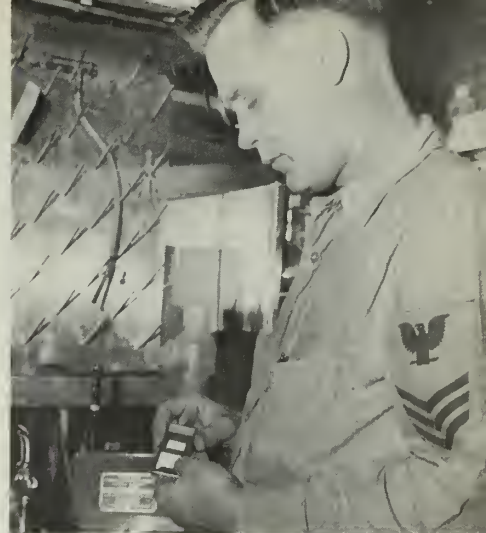
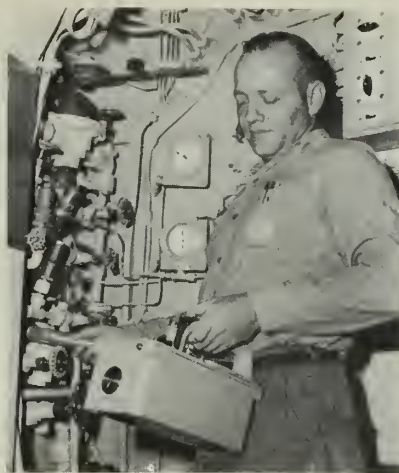
Another major factor in successful recovery is locating the LTVs and nose cones after the SSBN has

launched them. *Sunbird's* dead reckoning tracer is the key item in each recovery. Keeping an up-to-date graphic plot on the location of each LTV and nose cone is essential, especially when they are floating a mile or two from one another.

In addition to launching LTVs, fleet ballistic missile submarines also launch another type of dummy test unit. Known as *Sabots*, these have

the general shape of a bathtub plug. They are big plugs, however—three feet in length and four and one half feet in diameter.

Recovering *Sabots* is a relatively easy operation. But with the topside so crowded, stowage could be a big problem. *Sunbird* seamanship has solved this in a way that is simplicity itself. The *Sabots* are simply lashed alongside. —San Polon, JO2, USN.



CORPSMEN ON THE JOB — L. D. Burton, HMC, P. L. Cronan, HM1, and F. N. Henson, HM1, check air and radiation.

Corpsmen of the Nuclear Navy

LIFE ABOARD a nuclear-powered submarine can be safer than living ashore.

Any crew member will tell you he has no qualms about living with an atomic reactor, or staying submerged for weeks at a time.

As a matter of fact, people ashore are exposed to more radiation than those aboard nuclear submarines, says CDR Walter Dedrick skipper of *uss Halibut*, SSG(N) 587.

"When we are at sea, we are protected even more," the Commander said. "The water absorbs a good deal of the cosmic radiation from the sun. This is in addition to the protection we already get from the ship's hull and from safety factors inside the ship."

At present, the Navy has 11 nuclear-powered submarines in commission, with more under construction or near commissioning.

With the advent of this nuclear seapower arose a group of specially trained hospital corpsmen. The primary job of these men is to see that living conditions aboard remain at the peak of safety and comfort.

To do this, *Halibut* corpsmen, for example, conduct several daily tests. They use portable and fixed instruments which are so sensitive they register radiation from harmless illuminated watches. Crew members cannot wear illuminated watches.

A radiation check is made on the reactor's primary water system — tubes of water which wind through the reactor. This water must remain at a specified level of radioactivity. Daily, the corpsmen give samples of this water a "count" with electronic

measuring devices in the ship's nucleonics laboratory.

Halibut's nuclear plant is simply a modern version of the old steam engine. A primary water system is heated directly by the reactor. This water in turn heats a secondary water system to produce steam for turbines and generators.

Crew members can check themselves for exposure any minute of the day. Nuclear ships require that each man wear a pencil-like dosimeter and a film badge. Each man checks his dosimeter at random by peering through it and reading the dosage scale. Moreover, the film badges are collected and developed by the corpsmen periodically to give more detailed readings.

The amount of radiation a man can receive is limited to five roentgens per year. On his personal dosimeter during one month, Commander Dedrick recorded only 10 milliroentgens—or ten-thousandths of a roentgen.

This is about the same amount of radiation an average individual would receive during a two-week period on the surface.

In five years of nuclear submarine

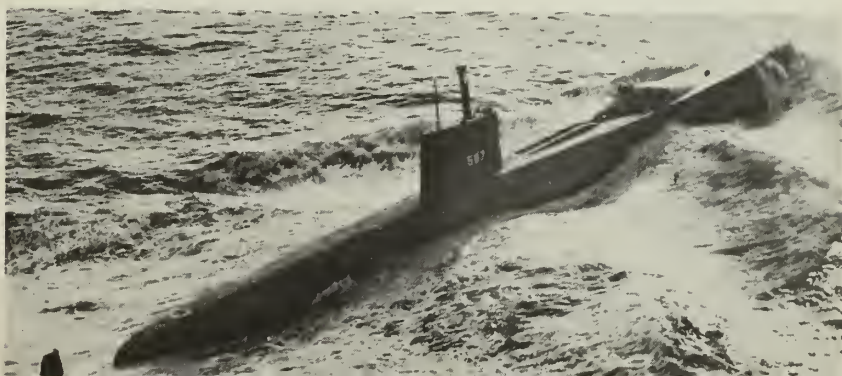
operation, the maximum permissible radiation dose has not yet been exceeded.

Another safety factor aboard nuclear submarines is the assurance of a continuous flow of fresh air. Stale air with an overbalance of carbon dioxide for instance, can cause headaches, nausea, or other side effects. But this is not a problem of nuclear subs. They can revitalize the same air many times. And, to be on the safe side, they carry an extra supply of oxygen.

However, corpsmen must make checks every few hours to assure that the air in the ship stays fresh and cool. These gas and radiation hunters scrutinize the oxygen, carbon dioxide, carbon and hydrogen content of the ship's air. Any significant changes above or below the norm are reported with recommendations as to corrective action.

To qualify for nuclear submarine duty, the Navy corpsmen must spend six months to a year at a nuclear-power school after completing their basic submarine and medical schooling. This is then topped off by a three-and-one-half month health physics course.

Nuclear-powered guided missile submarine, *USS Halibut*, SSG(N) 587.



Come Back and See Us

A CHURCH IN HONG KONG has stepped up its noodle production. South Korean Navymen are taking up acey-deucey.

And—in many other ways and many other places—the Navy is adding to its “Friendly Fleet” reputation, making a good impression on the people of other countries.

In case you’re wondering how noodles fit into the Navy picture, here’s the story.

This summer *uss Ranger* (CVA 61) made two visits to Hong Kong. On the first, she presented over five tons of food and clothing to the British Red Cross and Catholic Charities of Hong Kong for distribution to refugees from Communist China. She also presented \$1000 to the Community Typhoon Fund of Hong Kong. The food and clothing had been collected in the United States before *Ranger* left the West Coast. The money was donated by the crew.

About a month after that *Ranger* went back to Hong Kong—this time with a \$1300 check from a fund raised by the Catholics on board and a check for \$2000 from a fund maintained by *Ranger*’s Protestant crew members.

One of the checks will be used to buy six, one-family stone cottages for refugees living in Kowloon. Each of

the cottages is located on a small plot of ground where the occupants of the houses can raise chickens, pigs and vegetables for home consumption or sale on the local market.

The other check is the one that put the noodle twist in the story of *Ranger*’s visit. This money is being used to buy a noodle machine for a factory being built by a Catholic church of Hong Kong. When the factory is completed it will produce about 1500 pounds of noodles a day for distribution through refugee organizations, and will employ about 100 refugees. The noodles are made out of surplus flour from the United States. (Since the refugees are unable to bake bread in their small charcoal stoves the noodles have turned out to be the best way to distribute the flour to them.)

WHILE *RANGER* was doing her bit for the noodle industry, *uss Cabildo* (LSD 16) did hers for acey-deucey.

Almost every night, during *Cabildo*’s participation in Operation Sea Hawk off the coast of Korea, there was at least one acey-deucey game going on in the wardroom. The officers of an embarked boat unit from the Republic of Korea Navy displayed a great interest in the game, so

some of *Cabildo*’s officers opened up an informal acey-deucey school. Under their instruction, the ROKs were soon playing like old hands.

To help spread the game among the South Koreans, *Cabildo*’s crew has presented an acey-deucey set to LT Chung-Yeul, the boat unit’s commander, and suggested the reproduction of the game in quantity if it catches on in the Korean Navy.

The last *Cabildo* heard, acey-deucey was fast becoming as popular among South Korean sailors as it is among American Navymen.

IN A MORE SERIOUS VEIN is “Operation Sister Hilda”—the pet project of the *uss Uhlmann* (DD 687).

Sister Hilda, a nun and physician who has become almost a legend, operates St. Joseph’s Hospital in Kaohsiung, Formosa. She started the hospital with little more than her medical degree from Georgetown University in Washington, D.C., and her experience as a missionary in China. Now, as the only doctor in the 35-bed facility, she has treated 11,000 bed cases and over 250,000 outpatients in the past 10 years. She has also delivered more than 4000 babies.

Uhlmann learned of St. Joseph’s and its problems in the fall of 1959, when that ship called at Kaohsiung and some of her crew members helped out at the hospital. The Navymen found that one of St. Joseph’s biggest needs was for a reliable electrical supply, so they raised more than \$300 for a generating unit. Another destroyer delivered the generator early this year.

That was only the beginning of *Uhlmann*’s assistance. This summer when the ship left San Diego for the Western Pacific, she carried more than \$8000 worth of medical supplies for Sister Hilda. The supplies had been donated to the hospital after *Uhlmann*’s skipper, CDR John Lacava, Jr., wrote letters to medical and pharmaceutical firms throughout the United States to explain Sister Hilda’s needs.

ABOUT THE TIME *Uhlmann* was engaged in “Operation Sister Hilda,” Navymen elsewhere in the Far East were busy in a different sort of

GOOD TIMES LAUNCHED—Liberty launch with group of children from Naples orphanage heads for ‘party time’ aboard *USS Franklin D. Roosevelt* (CVA 42).





FRIENDS ABROAD—Australian girls visit U.S. ship during open house. Rt: Japanese lass gets trumpet 'lesson.'

aid to people in distress. Within a period of less than three months Navy ships and aircraft in the Philippines-Formosa area rescued 221 persons through assorted mercy missions.

The period began when *uss Arnold J. Isbell* (DD 869) risked her own destruction to save 104 Filipino fishermen from a vessel aground on Baker Reef in the South China Sea. (See **ALL HANDS**, August 1960.)

To get to the scene of the wreck the destroyer had to thread her way through reefs and shoals so tricky that planes from Patrol Squadron 40 flew ahead of the ship and dropped flares to mark the open passages.

The Sangley Point-based VP-40 figured prominently in another big rescue operation. In this one her P5M *Mariners* landed in high seas about 85 miles northwest of Manila to help save 57 people from an airliner ditched off Polillo Island.

Helicopters from *uss Yorktown* (CVS 10) also participated in a major rescue effort. It involved the British freighter *Shun Lee*, which had been driven aground on Pratas Reef by high winds and heavy seas during a typhoon.

Right after *Shun Lee's* distress call was received *Yorktown* headed for her at full speed. When the American carrier got within 50 miles of the reef she sent seven helicopters to the grounded ship. The copters lifted the 53 merchant seamen off the wreck,

and carried them to the British frigate *Torquay* which was standing by.

SEVERAL RESCUES on a smaller scale contributed to the total of 220 for the three-month period. For instance—thanks again to *Yorktown's* copters—two American missionaries, a Chinese nurse and their vehicle driver were evacuated from a Taiwan village, 6000 feet up a mountain side, where they had been marooned four days by heavy rain and landslides.

Less than a week later the Navy

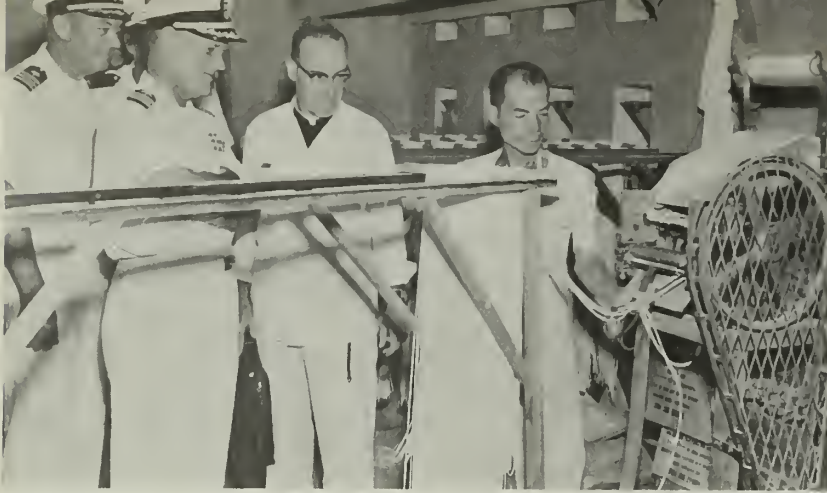
sent a seaplane from Sangley Point to the island of Tinau to rescue a man whose side was paralyzed. The plane landed at Manila, where an ambulance rushed him to the hospital.

Although it may not be technically correct to call these lifesaving missions part of the People-to-People idea, they still help demonstrate to people in other countries that it's nice to have the U.S. Navy around.

NOT SO SPECTACULAR, but also worthwhile, are such events as

FOR FORMOSA—Crew members of *USS Uhlmann* (DD 687) check out load of medical supplies donated to Formosan hospital by efforts of destroyermen.





USING THEIR NOODLES—Officers of *USS Ranger* (CVA 61) watch noodles being made. *Rangermen* gave money to Hong Kong church to build factory.

"La Semaine Franco-Américaine" or Franco-American Week in Brest, France. This consisted of five days of activities in which the Navy's newest and largest heavy cruiser, *uss Newport News* (CA 148) was the feature attraction.

On the first day civilian and military dignitaries paid official visits to the ship.

Highlights of the second day in port were a bus excursion for 80

Navy men through Brest and the surrounding countryside and a dinner for the CPOs of *Newport News* aboard the French carrier *Clemenceau*.

Next day was a French national holiday, and both American and French units marched through the city in a parade that lasted more than an hour. Later the same day hundreds of visitors were shown through *Newport News* and the destroyers which had accompanied her, *uss Ault* (DD

698) and *Putnam* (DD 757). That evening, as a final flourish, the Americans held a reception for the French aboard *Newport News* while the city of Brest entertained 300 American Navy men at a dance downtown.

Behind her, the men of *Newport News* tried to leave the same sort of impression that other Sixth Fleet Navy men had left when they visited Beirut, Lebanon. Quoted from the "Daily Star," an English-language newspaper in Beirut, the news item shows the kind of impression the People-to-People program hopes to create everywhere:

"We have heard of the book called 'The Ugly American,' but the authors certainly didn't have the United States Sixth Fleet in mind when words of criticism were penned about Americans abroad.

"Thousands of these sailors are now visiting Beirut, and never have we seen such well-mannered young men.

"Friendly, polite and sober—this is what natives of this city are saying about the sailors. We second the description."

—Jerry Wolff.

Scholarships Donated in Name of the Navy

The Navy's ships and stations have undertaken all sorts of worthwhile projects to improve international understanding at the people-to-people level.

Among those who have benefited from such efforts are a Filipino youth named Rogelio Lim and Hoshin Nakamura, a young Okinawan.

Rogelio, from Olongapo, Zambales, was presented a \$500 scholarship by *uss Bryce Canyon* (AD 36). As a result, upon finishing high school, he was able to begin automotive mechanics studies at the Feati Institute of Technology in Manila, instead of going job hunting as he had originally expected to do.

The scholarship covered the cost of Rogelio's tuition, books and living expenses for one year. *Bryce Canyon* established the award to show her appreciation of the hospitality extended to the ship by the people of Olongapo. Since the AD is basically a repair ship, the crew decided a scholarship in the field of industrial arts would be the most

appropriate kind to give.

Rogelio was selected for the award by a committee made up of leading educators from Olongapo and the commander of the Naval Base at Subic Bay.

Hoshin Nakamura, a 19-year-old student from Naha, will be able to attend the University of Hawaii for four years, thanks to the men of *uss John S. McCain* (DL 3). He hopes his education will "help me to teach English to my people so that they can better understand America and its people."

The young Okinawan sailed to Hawaii on board *uss Somers* (DD 947) in time to enroll this fall as an English major. When *Somers* moored at Pearl Harbor, members of *McCain's* crew lined the pier to welcome him, and a 30-piece band greeted him with Hawaiian numbers.

Hoshin was selected by a committee of eight men, representing *McCain's* crew. Six outstanding candidates had been considered for the award. The committeemen were charged with raising the ne-

cessary funds and administering the scholarship.

The \$1150 scholarship will continue on a yearly basis with its renewal dependent on the student's progress. The crew members contributed an average of four dollars toward the first-year expenses, which include tuition, admission fees, books and academic supplies, and room and board. The original \$1150 was raised by raffling off a motor scooter. To keep the fund going, the \$120-a-month profits from an ice-cream machine aboard *McCain* have been earmarked for education; the ship's bingo receipts have also been set aside for that purpose.

A farm lad, Hoshin is the youngest of four children. He learned his English from American servicemen and their families who live in the Bucknerville housing area near his home in southern Okinawa.

After completing his education he wants to build a library for his village so, as he puts it, "everybody may be able to read whatever they want."



Sailor Sponsors

Many ships and stations have held parties for groups of children in foreign ports, but some units have put their "big people to little people" programs on a more permanent basis. For instance, take the Navy's efforts on behalf of the Mi Ae Orphanage in Korea, the Luberstat Kinderheim in Germany and the Monobe Primary School in Japan.

The Mi Ae Orphanage, in Pusan, is maintained by Navymen from the Pusan office of MSTs. It is run by Mrs. Lee Kyung Soon, who began taking in homeless boys and girls after she had lost two of her own children in the Korean war (see the May 1958 issue, P. 22).

While seeking scrap material which she used to maintain the orphanage, Mrs. Lee was helped by Army personnel who kept the home going until 1957. Then the local MSTs office lent a hand, and began providing the main support for the orphanage.

The first project after the MSTs office took over was a health measure—to move the orphanage's pig pen away from the living quarters and mess hall. In another move to improve sanitation the windows and doors of the living quarters were screened. Next came the exterior painting of the buildings.

The *USS Tulare* (AKA 112) came into the picture by contributing \$70 to the project during a visit to Pusan. This made possible a new tile roof to replace the leaky old one over the boys' quarters.

To keep the orphanage going

the men of the Pusan MSTs office have taken it on themselves to contribute a small amount each month out of their pay. They also write home to get their families to send spare clothing.

On the other side of the world from the Mi Ae Orphanage is a home for German orphans called the Luberstat Kinderheim. Navymen at the U.S. Naval Security Group Activity in Bremerhaven, Germany, found out about the place in February 1958, when they asked local authorities for the name of an orphanage that could use some outside help. Not long afterward a group of NSGA personnel reserved a bus and made the 30-mile trip to see the place for themselves.

It was obvious from the start that the Kinderheim (children's home) needed help badly, and the men who had made that first trip soon spread the word to their fellow Navymen and Marines. On the next trip, a bus went out to the home loaded with men and about 12 boxes of used clothing and toys, plus \$100 in cash. After getting acquainted, the Navymen promised to be back in a month. They were—taking along another \$100, boxes of toothpaste, soap and more clothing and toys.

On Easter the Navymen saw that each of the children got a basket filled with eggs and candy.

Since then, the Security Group has taken the orphanage \$100 every month, along with dozens of pairs of new shoes and slippers, a



NAVY PROJECTS—Japanese school (left) for underprivileged children was built with Seventh Fleet contributions. Rt: Navymen of MSTs unit maintain Korean orphanage.

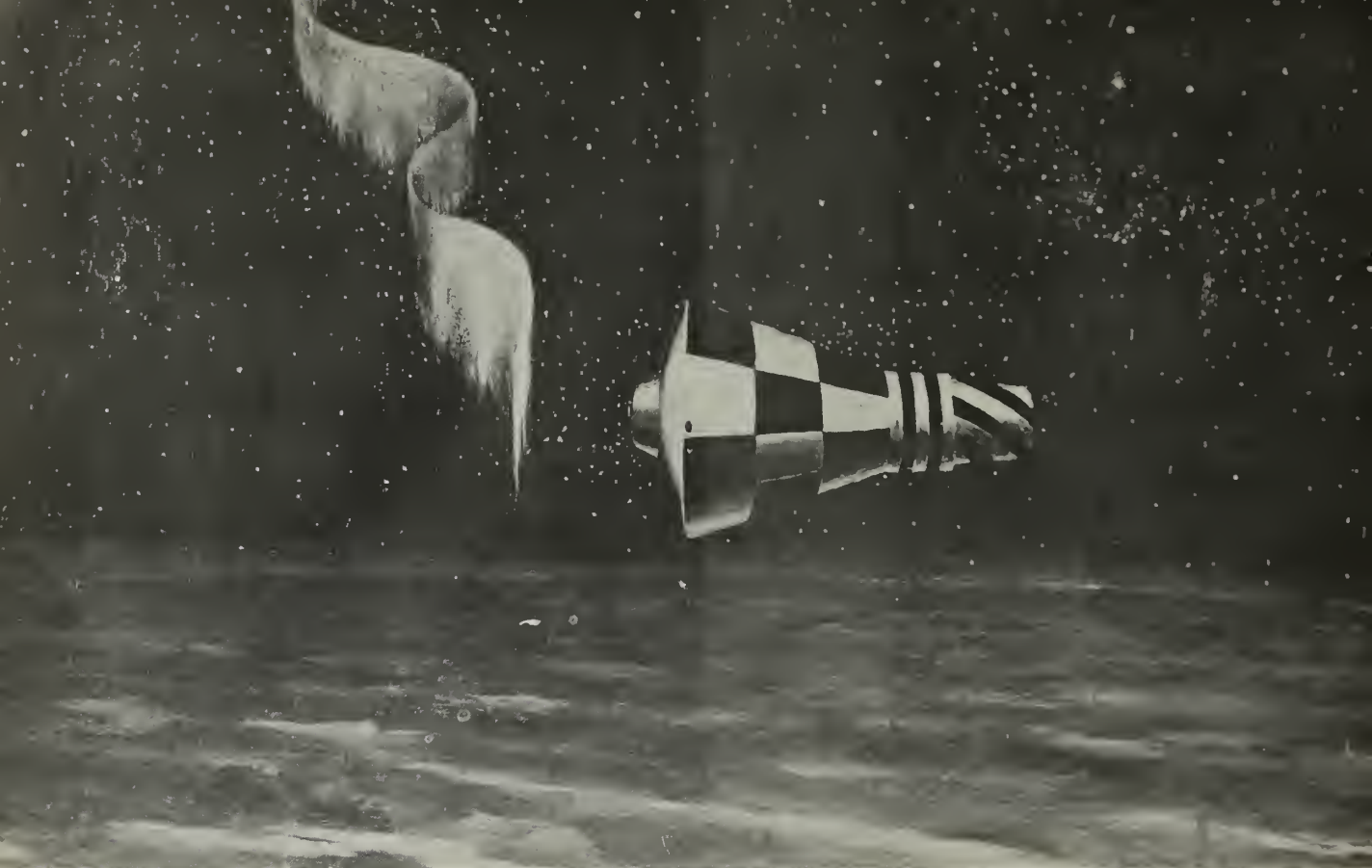
\$150-vacuum cleaner, a \$200-automatic potato peeler, several new play pens, candy, crates of fruit juice and many boxes of new and used toys and clothing.

The Luberstat Kinderheim is an example of what just one activity can do. A good demonstration of what a whole Fleet can do is the Monobe School in Sumoto, Japan.

It all started with a letter from the Mother Superior of a convent in Osaka to the Commander of the Seventh Fleet. The letter told of a small school on Awaji Island that had been established for underprivileged children. Facilities were inadequate. There was land for a new school, but there was no money to build one.

When the Seventh Fleet got wind of the situation, money began pouring in from the 60,000 Navymen serving 125 ship and shore activities of that organization. Work on the new school was launched with a check for \$6000. The money kept coming in until there was a total of \$25,000.

Now, the children at Sumoto go to school in a light, bright and modern building instead of the ramshackle old place they had before the Navymen of the Seventh Fleet went to work.



Navy Missile Catchers

TO MOST MEN, it's a scientific miracle that we can put a space capsule into orbit, and then have it eject and return to earth in a pre-designated area of the globe. And to a future astronaut returning to earth, it's not only scientifically interesting but mighty important that someone be at that pre-designated spot, to find and recover the capsule.

This job may go to the Navy's

Pacific Missile Range Representative and his group at Kaneohe, Hawaii.

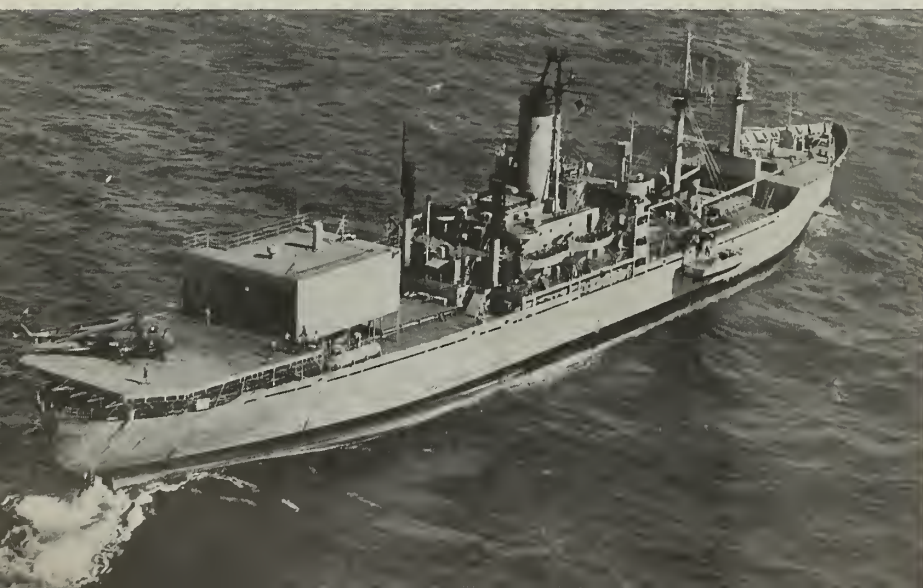
Already the group has rescued the first space capsule—from *Discoverer XIII*—to return from orbit. For this, Robert W. Carroll, BM3, USN, Lt. Clifford C. Allsup, AD1, USN, Albert C. Pospisil, USN, and LTJG Arthur S. Anderson, USN, received Air Medals from the U.S. Air Force.

The capsule recovery took place on the afternoon of 11 Aug 1960. Waiting as it returned to Earth from space were the Pacific Missile Range recovery ships USNs *Haiti Victory* (T-AK 238) and USNs *Dalton Victory* (T-AK 255), and naval radar aircraft plus a specially equipped Air Force plane which would attempt a mid-air snatch of the parachuting capsule.

As the capsule descended into the pre-programmed area about 250 miles northwest of Honolulu, the PMR (Pacific Missile Range) ships followed it with radar while they headed for the landing point. The Air Force plane also spotted the capsule, but was too far away to make an air-catch.

WHEN THE CAPSULE hit the water, USNs *Haiti Victory* launched her two recovery helicopters. LT Pospisil, pilot of helicopter *Outrider Two*, hovered 10 feet above the bobbing capsule while Scuba diver Carroll, BM3, leaped into the water. He worked in four-to-five-foot sea swells for eight minutes preparing the capsule for hoisting. When this

MISSILE CATCHERS — USNs *Dalton Victory* is part of satellite recovery team.



ALL HANDS

was completed, Allsup, AD1, who was plane captain, hoisted the package into the chopper. The helicopter then flew back to *Haiti Victory*, and the next day delivered the space capsule to Hickam Air Force Base, Hawaii.

For the crew of this helicopter, it was much like a practice session that they had repeated time and again. This time, however, it was the real thing. And next time it may be an astronaut that they fish from the water.

Headquarters for the Hawaiian PMR representative is a squat, sound-proofed, air-conditioned building on the shore of Kaneohe Bay, Hawaii.

Behind its glass-enclosed entrance are offices much like those of any newly built Navy establishment. Inside the building, however, missile impact locator consoles constantly trace sound patterns from the surrounding ocean, and chattering teleprinters relay information about earth-orbiting satellites and deep-space probes.

This building, besides providing the administrative and technical facilities of the Pacific Missile Range Representative in Hawaii, also houses electronic arteries that span out to island tracking stations, telemetry receiving sites, space capsule tracking and recovery ships, missile impact locator systems, and other networks which link together the equipment supporting U.S. projects in space.

PMRR KANEOHE is the main down-range site of the Pacific Missile Range.

Some two months after its establishment in September 1958, a couple of Navy officers and five civilians waited in a rehabilitated quonset hut, 200 yards from where the new headquarters now stands, as the recording pen on a missile impact locator recorded sounds from the first *Thor* IRBM fired into the Pacific.

Since then the unit has grown from one quonset to a quarter-million dollar building. The handful of men have expanded to a combined military, civil service, and contractor complement of 120. From a single missile impact locator system it has grown in size to include missile and satellite instrumentation and tracking on two other islands (Kauai and Hawaii) with two range instrumen-

tation/recovery ships. The ships carry helicopters and specialized recovery crews, including Scuba divers to retrieve capsules returned from earth-orbiting satellites.

The Pacific Missile Range communication network fans out from Kaneohe to other range facilities at Barking Sands, Kauai, South Point, Hawaii, and thousands of miles down-range to Wake Island and Kwajalein and Eniwetok Atolls.

Direct telephone lines are used between Oahu naval commands and the Kaneohe Center. These hot lines go out to the Commander Hawaiian Sea Frontier operational control cen-

ter; Ballistic Missile Division, Hickam AFB; and the Federal Aviation Agency at Honolulu.

DURING SATELLITE RECOVERY operations and missile-firing exercises, Kaneohe provides network control for communications between the two surface recovery ships and PMR aircraft employed in the operation. It also functions as an operation control center for recovery ship coordination and control.

The Kaneohe facility operates one of two Missile Impact Locator Systems (MILS) in the Pacific Missile Range. This underwater detection

IN HAND — Diver R. W. Carroll, BM3, USN, grabs plane-dropped capsule.





ALLEZ OOP — Missile cone boards copter. Right: Headquarters for Navy's recovery activities is now this building.

system is used for recording and locating the impact of ballistic missiles or re-entry vehicles hitting the surface of the ocean. By 1961 PMR will have two additional stations at other down-range island sites.

Two types of acoustic systems, called the surface-impact system and the sound fixing and ranging (SOFAR) bomb method are used to locate the impact point of IRBMs. The first system detects the actual sound of an object hitting the water. In the SOFAR method the sound of a bomb, ejected by the missile and exploded under water, registers on sensitive hydrophones.

The Hawaiian PMR Facility works closely with the Air Force *Discoverer* Program. If, for example, a *Discoverer* satellite is launched into orbit, and is programmed to eject a

recoverable capsule in the vicinity of Hawaii, the Pacific Missile Range would provide helicopter-equipped recovery ships, a special instrumentation ship, and several telemetry recording sites.

DURING PACIFIC FLEET training operations (such as the launching of *Regulus I*, surface-to-surface guided missiles, or target drones for gunnery practice) Barking Sands tracks the flights to help recover the costly Fleet training devices.

At South Point on Hawaii, PMR tracks space vehicles which are orbiting the earth or penetrating into outer space. Equipment here includes a 60-foot antenna with command control timing, telemetry recording devices, and associated communications equipment.

From space vehicles, the station receives, monitors and relays telemetry data to reduction centers. Besides this, the station can relay command signals to change the vehicle's mission.

A receiving station, to be used in support of the Navy's Project Transit (a navigational satellite), is also being established at South Point. The receiving system was designed and built by the Naval Ordnance Test Station, China Lake, Calif.

Men assigned to the ships and stations operated in the Hawaiian area by the Pacific Missile Range don't know when they will again be called upon to retrieve a space capsule.

In the meantime they practice. The next real thing may be the first man to return from space.

TEAM FROM USNS *Haiti Victory* recovered *Discoverer XIII* capsule. Right: R. W. Carroll, BM3, USN, and C. C. Allsup, AD1, USN (center), are congratulated for recovering space capsule by RADM P. H. Ramsey, USN.





HE'S A STAR—K. J. Ploeger, ETN3, receives oath from CAPT R. E. Harmer, CO of USS Randolph (CVS 15).

Meet Our Latest STAR

KENNETH J. PLOEGER, ETN3, USN, is a STAR. And he is not just any STAR, but probably one of the first in the Navy.

STAR in this case means the Selective Training and Retention program. To Ploeger, who is now assigned aboard the ASW support aircraft carrier *uss Randolph* (CVS 15), and to many other first cruise Navymen, this is an important new word.

In Ploeger's case, it has brought about his discharge from the Navy for the convenience of the government, his reenlistment in the Navy for six years with a first reenlistment bonus, assignment to the electronics technician class B school, and when he graduates, automatic advancement to second class petty officer.

Ploeger is no different from many other men on their first hitch. He has a little above average GCT, graduated from the Tech High School in McKeesport, Pa., in 1958, and has no college training at all. He joined the Naval Reserve in 1957, and after 11 months, joined the Regular Navy. Formerly men couldn't reenlist in the Navy with any less than three years' active duty; Ploeger shipped when he had completed little more than one and a half years' active duty, all

thanks to the STAR program.

Here's what STAR can mean to other Navymen:

- Guaranteed assignment to Class A School of your choice.
- Automatic advancement from E-3 to E-4 for those who graduate from Class A school in upper half of class.
- Guaranteed assignment to Class B school for PO3s and PO2s who hold these ratings prior to reenlistment for career designation.
- Automatic advancement to PO2 for third class petty officers who grad-

uate from Class B school.

- Reenlistment bonus.

This program was started by the Navy because many weapons systems need highly trained men. Many of these trained men are on their first cruise and may leave the Navy after only a short time in the Fleet. That is a good deal for the individual, but the Navy loses out. Under the STAR program, however, both sides win. The Navyman gets the school, advancement and security, and the Navy gets a trained man for a total of at least seven years.

Men who take advantage of this program as set up in BuPers Inst. 1133.13, (also see *ALL HANDS*, October 1960), can be discharged to reenlist under this program any time after they have at least one year of active service. There are a couple of ifs, however. The Navymen must meet eligibility requirements for STAR, be recommended by his commanding officer, and finally reenlist for enough years so that the length of his term of obligated service will total seven or more years of active service when completed.

Right now, Kenneth Ploeger is not the only STAR serving in the Navy—he has plenty of company.





SHIP OF KNOWLEDGE—USS *Compass Island* (EAG 153) has done much to aid the development of Polaris-firing subs.

Navigator's Paradise

SHOULD USS *Compass Island* (EAG 153) ever become lost, the whole ship—not to mention the ship's company—would undoubtedly blush a rich, glowing pink.

It would be difficult to live down, for *Compass Island* carries more devices for finding its way about than any other ship in the Navy. No move the ship makes—in storm or calm—goes unnoticed by the sensitive measuring instruments that continuously supply the ship's position,

her speed and direction and more.

The primary navigational equipment is the Ship's Inertial Navigation System—SINS. *Compass Island* currently has two different SINS aboard, the Analog and the XN7. To analyze data received from the SINS, the NavDac (Navigational Data Assimilation Computer) is used.

NavDac is a computer capable of doing many, many chores, such as storing data for at least 300 stars in

sequence of brightness, calculating the altitude and azimuth of celestial bodies for use in computing the ship's position and for alignment of celestial trackers on bodies to be observed.

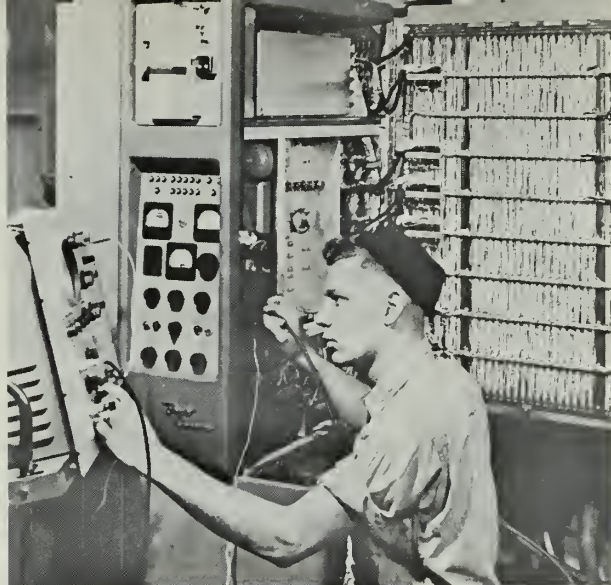
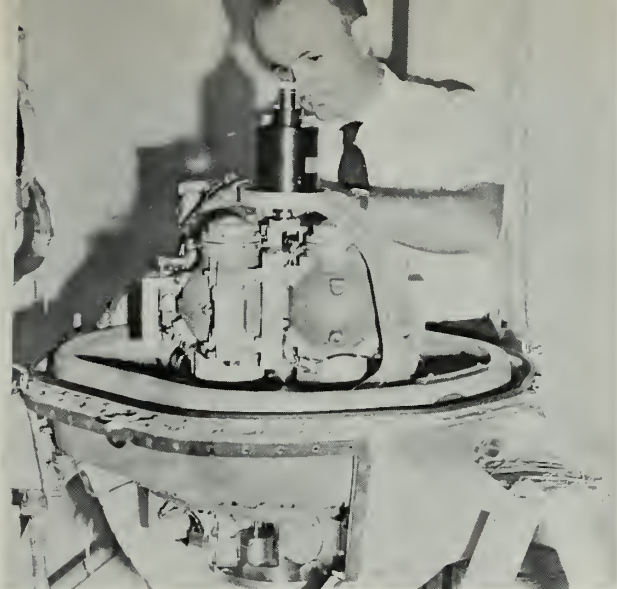
In all, *Compass Island* carries some 25 million dollars worth of navigational devices. The ship is a 564-foot converted Mariner-class merchantman, commissioned 3 Dec 1956 at the New York Naval Shipyard, Brooklyn, N.Y. She carries a crew of approximately 16 officers and 200 enlisted personnel.

Life on board *Compass Island* can be pleasant in spite of the long hours of work and hard study demanded by the special equipment. When the work is done for the day, everyone turns to at his choice of recreation. Boxing smokers and slapstick boxing are routine events. The mainstay is regularly scheduled basketball with inter-divisional competition. Also on the athletic program are occasional judo training and weight lifting, along with calisthenics.

The ship's hobby shop is something very special, and receives lots of use by all hands who construct bookcases, hi-fi cabinets and many other woodworking projects. The shop, which was built by the crew during their off-duty hours, houses a full set of woodworking tools and has many of the features offered only by hobby shops at shore stations. The money for equipment and material for recreation aboard was provided by the recreation fund.

STAR GAZER—Crew member of USS *Compass Island* unzips protective covering of a star tracker, one navigational research device on the floating lab.





ISLAND OF INSTRUMENTS—Stabilizing element of SINS is adjusted. Right: ET checks out the circuit of a computer.

Instruction is also provided for leathercraft and oil painting. Card games, chess tournaments, and frequent musical renditions by the ship's experts on the electric guitar and drums provide a different form of entertainment.

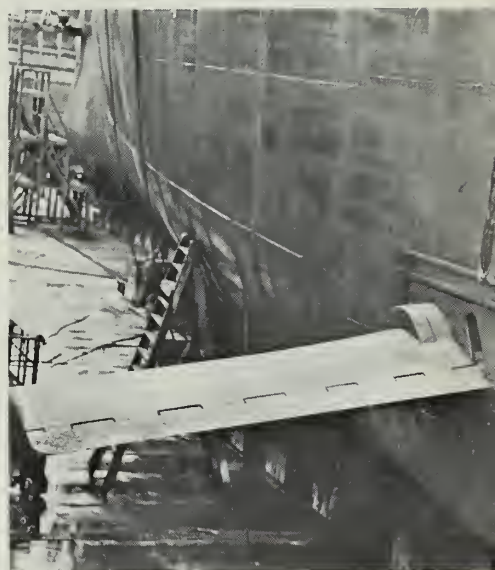
The ship is air-conditioned throughout the living spaces. The men sleep on foam rubber mattresses with individual fluorescent reading lamps over each bunk; the CPOs have their own staterooms. All lounges have television sets. The first class lounge has a de luxe hi-fi set built by the POs. When other ships are rolling 20 degrees, this ship reaches a maximum of five degrees because of its roll fins.

The normal operating area is near Bermuda and every time the hook

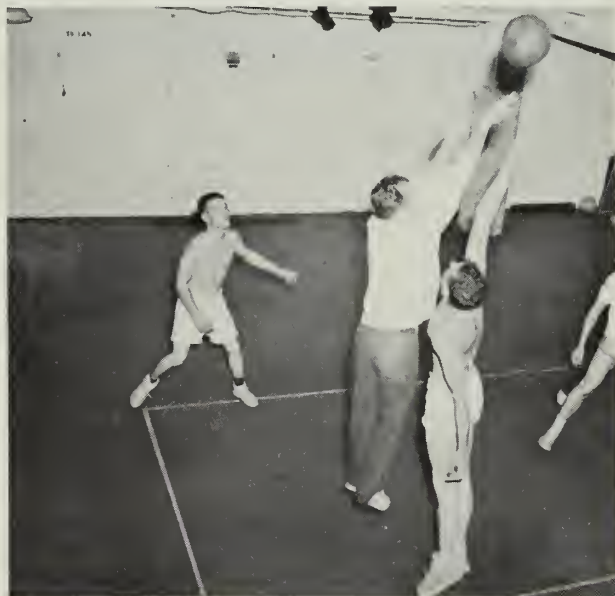
is dropped after working hours, there is an all-hands evolution of poles over the sides seeking the fish which got away the last time. A few of the choicest catches are specially prepared in the galley within minutes of capture for on-the-spot snacks.

To accomplish its mission, *Compass Island* steamed over 50,000 miles in the past year. The navigation system which guided *uss Nautilus*, SS(N) 571, under the North pole was evaluated aboard. *uss Triton*, SSR(N) 586, when she made her submerged round-the-world cruise, used equipment tested by this ship.

—LTJG B. F. Doddridge, SC, USN
M. L. Rowand, YNCA, USN



OFF DUTY crew members relax in hobby shop and with sports. Above: Stabilizing fins on ship's hull reduce roll.





THE MARINES

Semper Fidelis,

THE SWIFT PASSAGE of time since the first U.S. Marines started enlisting at Tun's Tavern in 1775 has brought about many changes. A look at the uniform and weapons of the 1960 Marine and what the Corps has in the fire now and for the future clearly shows that the Leathernecks have not only kept up with these advancements but also have their foot through the doorway of tomorrow.

Our earliest group of Marines would gaze in amazement at such things as body armor, fiberglass helmets, and other items now being worn or tested by today's Marines. They would be even more awe-struck if confronted by such weapons as *Ontos*, recoilless rifles, automatic artillery, and the new machine guns and rifles. Pictured here is some of the Marine Corps fighting gear now in use and experimental models being studied for future use.

Clockwise from Upper Left: (1) Group portrait shows anti-tank vehicle *Ontos*, one-man copter and Marine with new M-14 rifle. (2) Ground crewman directs





Semper Paratus

HR2S copter into position to air lift 6000-pound rolling fuel container. (3) Protective clothing is checked out as pilot flies through cloud from simulated atomic blast. (4) Crewman of M-67 tank watches copter bring in load of fuel. (5) Marine takes firing position with 106mm recoilless rifle mounted on "convertible mule." (6) 1960-style Marines pose armed with the latest M-14 rifles and M-60 machine gun. (7) Marine with light flame thrower and wearing experimental atomic, biological and chemical (ABC) protective clothing looks like a visitor from outer space. (8) Possible battle dress for leathernecks includes dual-purpose load-carrying and body-armor unit, laminated fiberglass ballistic helmet, and armored footwear to minimize injury from anti-personnel mines. (9) Gun crew tows 105mm howitzer now under evaluation. Gun can be broken down into 16 parts and be man-carried. (10) Shell is loaded into 115mm boosted rocket gun. This first automatic field artillery piece can fire six rounds in two-and-one-half seconds, the experts say.



Brief news items about other branches of the armed services.

ARMY MEN MAY TRAVEL on their stomachs, but if their feet are cold, it's tough going.

To help keep their feet warm and in traveling condition, the Army Quartermaster Corps has developed a new white insulated rubber combat boot. It is designed for use in dry-cold regions where temperatures range from 14 degrees above zero to minus 65 degrees.

During testing, the newly developed boots were worn by members of the International Geophysical Year Expedition in the Antarctic. They found the boots worked adequately in temperatures as low as 102 degrees below zero.

Only one pair of socks will be needed in the new boot which may replace the cold-dry mukluk boot and the Arctic felt boot currently in use. In these, several pairs of wool socks are needed.

The vapor barrier principle is used in sealing three layers of wool fleece in the upper and two layers of felt in the midsole between inner and outer rubber layers of the boot. The seal prevents sweat and outside moisture from wetting the fleece and thereby destroying the boot's insulating properties.

To prevent swelling and constriction of the foot when the boot is worn at high altitudes, each boot has a self-closing air-release valve for equalizing air pressure that may build up inside the boot's insulation.

Even though the new boot will increase foot protection, provide greater durability, foot support, and traction, it weighs two pounds less than the old boot with its combination of sockgear and felt insoles.

★ ★ ★

THE U.S. AIR FORCE's fourth and final mobility test train which carried the *Minuteman* ICBM through Utah, Nebraska, Colorado, Missouri, Iowa and Illinois for 10 days, has completed its run. Besides the missiles, the train carried Strategic Air Command crewmen, industry technicians, and observers.

Men aboard the train checked details of control, mobility and communications, and other factors that may affect future operations of an SAC fleet of trains. Such a train could carry *Minuteman* intercontinental



NEW ARMOR—Army M-60 tank undergoes field tests before going into production to replace M-48 Patton.



COULD BE—Artist's conception shows design now under study for a possible Air Force nuclear-powered aircraft.

ballistic missiles any place in the United States where there are railroad tracks.

"We have been especially pleased with the response of the railroads to this operation," General Thomas S. Power, Commander-in-Chief, Strategic Air Command, said. "They have clearly shown a willingness to make the missile mobility plan work."

SAC has two plans to protect its *Minuteman* force from destruction in a surprise attack. A large number of the missiles will be placed in underground concrete launch silos which will protect them from all but a direct hit.

These will be ready for immediate firing. Others will be placed on specially shock-mounted railway-launch cars in trains moving about the country at random.

Minuteman, a solid-fuel ICBM with a range of about 6300 miles, is scheduled to become operational in 1962.

★ ★ ★

ARMY RESEARCHERS are getting down to earth in their efforts to find out what makes the wheels go around.

At the Army Mobility Research Center at Vicksburg, Miss., they are studying how soil reacts to the weight, driving, turning, and breaking forces of military vehicles. They want to learn at what stage of continued traffic and under what moisture conditions a section of soil will break down and fail to provide enough traction.

Performance of vehicles has improved through the use of larger, more flexible tires, but no outstanding changes in fundamental traction principles have been demonstrated in 50 years, the experts say.

What is needed, they feel, is a fuller understanding of what takes place when a wheel or a track moves through soft soil. Without that knowledge, there is little hope of major improvements in mobility.

The study is also designed to increase knowledge of the off-road mobility of military vehicles.

When a vehicle leaves the road, advance knowledge of its ability to travel cross-country is invaluable to Army planners. "Sitting ducks" caught in the sticky clays of Italy and Okinawa, the loose sands of North Africa, and more recently in the rice paddies of Korea, have underscored the need to know whether a vehicle

can travel over a given surface at a particular time.

Although the program is aimed at improving mobility of the Army, some of the results may help solve transport problems faced by civilian contractors, loggers, miners and farmers.

★ ★ ★

A STUDY OF THE MOON'S TERRAIN has been made by the Interior Department's Geological Survey. The study will provide information for use in the selection of landing sites on the moon and serve as an aide in designing telemetering instruments and a moon surface vehicle.

This is the first such study known to have been made of the moon. It consists of three diagrams, each of which shows—with an accompanying text—the visible face of the moon at a 36-inch diameter.

Each of the regions is named and outlined in one of the diagrams. Many physical features of the moon are also named.

The second diagram shows the relative ages of the various lunar craters. Those craters which have a central peak are distinguished from those lacking one. Such lunar features as fracture patterns, faults, anticlines and monoclines are also shown.

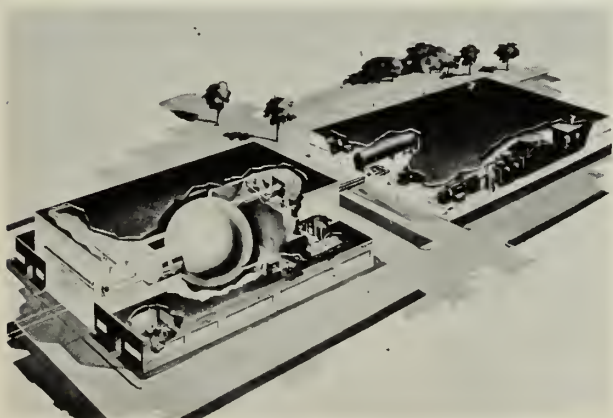
The third diagram depicts the prominent lunar rays. Interpreted as splashes of crushed rock caused by the impact of large fragments thrown out at the time of meteoric impact, some of these rays extend for hundreds of miles.

The text that goes with each diagram describes the various regions and gives information on relief and slopes. Interpretations are made of the probable composition and texture of the moon's surface and strength. Included, too, are the results of recent radar astronomy.

★ ★ ★

A NEW PORTABLE RADAR SYSTEM which is designed to look far behind enemy lines and provide photographic plots of battle information has been developed for U.S. troops.

The system will sweep enemy-held territory in a 25-mile semicircle and by periodic photo plots help determine whether enemy buildup or attack is impending or a withdrawal is in progress. (See ALL HANDS,



MOON MEN—Drawing shows how Army Engineers have designed facilities to duplicate the moon's atmosphere.



ON THE ALERT—Mobile air defense missile fire direction systems like this are deployed in Europe by Army.

Oct. 1960, p. 41, for an article on an airborne radar photographic system.)

The radar works on the Doppler principle, which detects slight movements because of the change in frequency of the radio waves reflected from the moving objects.

The entire radar system, including the antenna, weighs approximately 600 pounds. The antenna is somewhat larger than those used by orthodox battlefield radars. The system is officially known as the AN/TPD-2.

In actual operation the radar is transported by helicopter to a point overlooking enemy terrain, where a three-man crew would set up the three-piece antenna and assemble the equipment. In a relatively short time the radar is plotting movement of enemy targets and information gathered is then relayed to headquarters. Faster but less accurate locating and tracking of objects can be done by earphones, the experts report.

★ ★ ★

THE ARMY HAS A NEW WEAPONS SYSTEM which fires a salvo of 45 chemical rockets from the same tubes in which they are packaged.

The rockets can be placed in a launcher, electrical connections can be made, and the crew can start firing in less than 20 minutes. Stabilized fins, folded to fit in the fiberglass tubes, open automatically when the rocket is fired. An explosive charge disperses the chemical agent carried in the rocket head.

Because of the scatter characteristics of multiple-launched rockets, the projectiles can effectively cover large areas with chemical agents in a short time. The six-foot-four-inch, 115mm rockets are propelled by solid fuels. Fire control techniques are the same as those used for regular artillery.

The launcher, developed by the Army Ordnance Corps, is made of aluminum and rests on a tubular frame carriage. All the individual sections are light enough to be handled and put together manually. When assembled, the system can be moved short distances by the crew without a towing vehicle.

The entire weapon can be carried by helicopter or mounted on a two-and-one-half-ton truck.

LETTERS TO THE EDITOR

Just Married

SIR: I was detached from my last duty station overseas on 17 September with authorization for 30 days' delay to count as leave. The effective date of my orders was therefore 17 October.

I arrived at my port of entry, San Francisco, Calif., on 27 September, and on 2 October I was married. On 11 October I commenced my travel from San Francisco to my present duty station in Alabama.

As I interpret the *Joint Travel Regulations*, I am entitled to both a travel allowance for my dependent wife and a dislocation allowance. The local disbursing officer paid my claim for dependent's travel, but he refuses to credit me with the dislocation allowance.

Is this correct?—D.W.W., LT, USN.

• From the looks of things, you should get the dislocation allowance too, the experts say.

The Comptroller General has not made a specific ruling that would confirm the right to the allowance in cases such as yours. However, a ruling in another case, where someone was denied the allowance because he wasn't married until after the effective date of his permanent change of station orders, implied that he would have rated the allowance if he had been married before that date as you were.

Congratulations.—Ed.

Baby, It's Warm Outside

SIR: We of the small seaplane tender *uss Greenwich Bay* (AVP 41) lay claim to a new record for hot-weather sailing.

We are currently on our 12th cruise to the Persian Gulf. While anchored off Das Island recently, we recorded the following temperatures: Sea water—104 degrees F. Outside air—102 degrees F. In addition, unofficial outside temperature, in the sun, reached 122 degrees F. —W. A. P., LCDR, USN.

• So far as we're concerned, you've got half a new record, anyway.

Our files show that the U.S. Naval Hydrographic Office credits the destroyer *uss Zellars* (DD 777) with the all-time high recordings—air temperature of 130 degrees F., and water temperature of 94 degrees F.—while operating in the Persian Gulf back in 1948 (ALL HANDS, December 1959, p. 30).

Thus it appears you have boiled into first place in the water temperature half of the hot-weather sailing cook-off.—Ed.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

When Can I Take That Exam?

SIR: When can I go up for Chief? I first made AK1, USNR, in 1945, was released to inactive duty in 1946, and finally returned to active duty again as an AK1 in 1951.

In 1955 I joined the regular Navy, but was forced to take a bust to AK2. I made AK1 back in May 1960. Since I have had many times three years as a PO1, must I wait that period again before competing for CPO?—J. E. C., AK1, USN.

• You must wait out the 36 months since the length of time you were first class previously will not count. In your particular case, you cannot compete for AKC until February 1963.

Since you were reduced to AK2 when you shipped over to USN, you are subject to normal advancement procedures. This means 36 months as E-6 before you can compete for E-7.

In case you're skeptical, take a look at BuPers Inst. 1430.7D and the "BuPers Manual," Article C-7212.

There are reasons for this requirement. One is to insure that an individual knows his rate. If there has been a lengthy time lag involved a man may not have kept up with the changing duties, new procedures, and new equipment he'll be required to use.—Ed.

Date of Rank for Ex-Warrant

SIR: The one-shot selection of Warrants for LDO(T) grades commensurate with time served as Warrant, which was scheduled for some time in September 1960, has posed a situation I would appreciate some information on.

I am an ex-Warrant, W-1, who was selected for Ensign LDO(T) at an earlier date. My date of rank as Warrant was 1 Sep 1959, while my date of rank as Ensign is 2 Jun 1960. When the selections for LDO(T) from the Warrant ranks as a result of the September 1960 board's recommendations are made, will my date of rank as Ensign be changed to 1 Sep 1959, or be otherwise adjusted so that my time as Warrant will count toward promotion to LTJG?

If this were not done, it is conceivable that I and many other ex-Warrants

could lose seniority through being selected by earlier, and possibly more stringent, selection boards. In my own case the time involved is negligible, but for many others it could make the difference between a higher rank. It could also make it easily possible for a Warrant junior to a previously selected Warrant to be senior to him as an LDO(T).—D.C., ENS, USN.

• Rest assured that the Navy is not planning to make you or any other ex-Warrant selected for LDO(T) at an earlier date suffer any loss because of it. You and all others in the same category will have your grades and date of rank adjusted according to the time served in the Warrant grade.—Ed.

What Is Continuous Active Duty?

SIR: According to Navy Uniform Regs (Art. 0654.4) a CPO must, among other things, have "not less than 12 years' continuous active duty (full-time duty) in the Navy and/or Naval Reserve" to be eligible for Gold Lace Service Stripes. Could you throw more light on the words "continuous active duty"?—E.M.A.H., YNC(W), USN.

• As used here, it means without a break in active duty of three months or more. (A "broken service reenlistment" would, therefore, disqualify a person.)—Ed.

Station Journal

SIR: In keeping and writing a Station Journal, I contend it should only be signed by the Officer of the Day at the completion of his watch, whether the watch is for 24 hours or only four hours. Similarly, I contend the Assistant Officer of the Day, standing an eight-hour watch, need only sign the journal when he is being relieved at the end of the eight hours.

Is this correct?—T. M. A., BMC, USN.

• If you really mean the Station Journal, you're definitely wrong.

The Station Journal (Article 0792, "Navy Regs") is a monthly summary of important events, usually written by the Executive or Administrative Officer and signed by the CO. The events in it are usually extracted from the Duty Officer's Log.

If you are referring to the Duty Officer's Log, there is no regulation requiring the duty officer to sign it more than once, regardless of the length of his watch. However, local instructions may require it to be signed more often.—Ed.

Rough-Riding in Cheyenne

SIR: For the past six years my uncle and I have been having a friendly argument every time we meet. He was a sailor back in '18.

My uncle tries to convince me that he once served as a fireman on a ship named *Cheyenne*. Says it was a monitor. I've looked in many libraries and have yet been unable to find any evidence of such a ship in the Navy.

Could you settle this endless argument between an old salt and a young salt?—F.P.D., Jr., RM2, USN.

• Looks as though your uncle is a winner. USS *Cheyenne* was "Coast Service Monitor No. 10." This ship was originally christened USS *Wyoming*, but her name was changed to *Cheyenne* on 1 Jan 1909. In 1937 she was stricken from the Navy List.

Monitors were vessels of moderate size—3000 to 6000 tons—with a very low freeboard. Heavily armored at the waterline, they had a poor coal capacity and a low speed. A monitor's battery usually consisted of one or two pairs of heavy guns mounted in turrets and a few intermediate and secondary guns. They made a very unsteady gun platform at sea, for they rolled deeply and quickly, and later came to be used entirely for harbor defense.—ED.

Excess Leave

SIR: My question is based on Art. C-6104, *BuPers Manual*—which says that periods of lost time and periods of excess leave or other periods in a non-pay status are deducted from active service on a day-for-day basis.

If both lost time and excess leave are deducted from active service on a day-for-day basis, then why wouldn't excess leave have the same effect as lost time on (1) pay entry base date, (2) computation of service for transfer to the Fleet Reserve, and (3) completion of enlistment, period of induction or service obligation?—J. J. K., HM1, USN.

• Sorry, but you've misinterpreted the article from "BuPers Manual." The article is concerned only with earning leave. There is no law or regulation requiring that excess leave be considered in computing pay entry base date, service for transfer to Fleet Reserve, completion of enlistment, and so on.—ED.

What Comes First in First Aid?

SIR: I would appreciate it very much if you could obtain an official answer to a question which has been argued over many weeks now among corpsmen serving at Naval Hospital, Oakland. The question: Which should be treated first: shock, hemorrhage or asphyxiation?

I contend that hemorrhage should be treated first. Others, who have attended the Field Medicine School, claim that asphyxiation should always be of first concern. Still others, graduates of Independent Duty School, say that shock



TARTAR SAUCE — Newly commissioned USS Charles F. Adams (DDG 2), named for the former SecNav, is equipped with Tartar guided missiles.

should be treated first of all.

We are interested in obtaining correct information on this subject not only so that we may correctly answer the question if it should appear on an advancement in rating examination again, but also that we may add to our knowledge as hospital corpsmen.—A.L.C., HM1, USN.

• If you think your question created a controversy at your hospital, Doc, you ought to have seen the lulu of an argument it started here at ALL HANDS. Apparently it's one of those "chicken or the egg" type of debates, about which nearly everyone seems to have a theory, plus several good arguments to back it up.

We're not medical experts—so we went to the people who are for an answer. In the last-word department, here is the Bureau of Medicine and Surgery's official position on the matter:

For the purpose of answering an examination question as to which condition should be treated first, the answer should be: (1) asphyxiation (2) hemorrhage (3) shock. The various training manuals are being revised to reflect this emphasis.

In actual practice, however, the procedure would naturally vary slightly according to the logic of the situation. In general, restoration of breathing must be the prime consideration. However, if there is massive bleeding, a few seconds might be taken to apply quickly a pressure dressing, or even a tourniquet, before starting artificial respiration.

When you consider that death can occur in a matter of minutes when respiration is absent or impaired, and that permanent brain damage can occur even more quickly under these conditions, while death from hemorrhage usually takes a longer time, it is evident that the

first concern in first aid must be artificial respiration. On the other hand, artificial respiration may require prolonged effort, so that if there is massive bleeding, a few seconds to check the hemorrhage, if not absolutely control it, would be time well spent.

The treatment of shock must be undertaken after respiration is restored and the hemorrhage controlled.

It should be remembered also that if others are present, all three conditions can be treated at the same time.—ED.

OFF TO SEA — Destroyermen of USS Forest Sherman (DD 931) bid goodbye to port as ship sets out to sea.





HOME AT SEA — Crusader jets of VF-24 circle their sea-going airfield, USS Midway (CVA 41) in formation during air exercises over the Pacific.

Twenty-Year Hitch?

SIR: I have an idea which, at the moment, sounds pretty good to me but it's quite possible that there are some bugs in it which I haven't found. I'd appreciate your opinion and those of your readers.

A young man enlists in the Navy, finds he likes the service, and decides that he will make the Navy a career. Subsequently, he marries or is ordered to duty he does not like. When his enlistment expires he may face family pressure or he succumbs to the dissatisfaction with his present situation and does not reenlist, although he likes the Navy and if the decision had not been forced on him he would have remained in the service.

How can this periodic re-evaluation of the service as a career be avoided? The answer is simple, by permitting selected enlisted men to sign agreements to remain in the Navy until retirement age. Such an agreement would cause the man to accept the Navy as a career without periodic reappraisal; he would not have to reconsider his decision every four or six years. In the event he is married, his family would be party to the decision and therefore oriented to living with it. If unmarried, when he marries his wife would know of the commitment and thus be prepared to accept it. Changing circumstances and the vicissitudes of service life would be more likely to be accepted as temporary and loom less large.

Why should a man make such an agreement? Some advantages must be provided to make it worth his while. Increased pay cannot be one of them, since pay is set by Congress and is service-wide. The advantages can be in terms of increased promotion opportunities, educational preference, increased stability of assignment and guarantee of

stability of residence. Thus the service can promise a man the following:

- He will suffer no monetary loss.
- Preference in selections for college training and service schools.
- Preference in selection for LDO or commissioned status.
- Assignment to the same major base complex for each tour of shore duty, excepting school assignments.
- Assignment to ships based at the fleet complex of his residence during sea tours.
- Additional prerogatives as appropriate.
- A distinctive mark on his uniform. (The square knot from the old Navy ratings might be used, for example.)

These advantages would set the man aside and create a nucleus of career men in the Navy, whose influence would

Right Arm Rates

SIR: I understand that some time ago CPOs and petty officers in some ratings wore their rating badges on their right arm. What were those ratings? Will there be a return to that manner of wearing the rating badge?—V.L.K., EN3, usn.

• Until 2 Apr 1948 the POs and CPOs of what was then the Seaman Branch wore their rating badge on their right arm. The Seaman Branch ratings (often called "right arm rates") in effect at the time of the change were Fire Controlman, Signalman, Quartermaster, Torpedoman's Mate, Mineman, Gunner's Mate, Turret Captain, and Boatswain's Mate. (BM3s were then officially "coxswains.")

There are no plans for returning any rating badges to the right arm.

—Ed.

be out of proportion to their numbers. Additionally, it would permit the man to establish a home and become part of a community. His family could establish roots and be more reconciled to the enforced absences that are part of Navy life.

What does the Navy get out of this? The service needs professional sailors who can reach top efficiency, permit advanced training and reduce its training load. On the other hand it cannot predict the future and must limit its number of professionals sufficiently in order that the shifts in authorized strength can be met. Secondly, it must, if it is not to destroy the very object of its efforts, scrupulously observe any promises or commitments that are made. Finally, in its professional core it must have men of high caliber and motivation to achieve the efficiency it must have.

Therefore, if a system of long-term agreements were to be adopted, the system must first be limited in numbers, second, be offered only to high caliber men and third be strictly observed both by the man and the service.

How should such a program be administered? It should not be regarded as a program but should be handled on a personal basis. Insofar as possible the man to whom such an agreement is offered should be made to feel that he has been specially selected. During the final year of their enlistment, based on commanding officers' recommendation, performance of duty, and intelligence level, men should be selected. To these men a letter should be sent. It should be signed either by the Chief of the Bureau of Naval Personnel or if possible by the Chief of Naval Operations. It should not be sent through the chain of command but direct. In this letter he should be informed that he is considered as fitted to be a career Navyman and offer him the opportunity to execute the agreement. The advantages should be enumerated. Similar letters should go to his wife or his parents. Replies or further correspondence should of course be through the chain of command.

By making his selection an honor, by treating it as a personal matter, by not publicizing it as a program, and treating it as of sufficient importance to be signed by our highest naval officer, a nucleus of long-term professionals will be established in the Navy.

What do you think?—Thomas R. McGrath, CAPT, usn.

• Your proposal contains a lot to think about. (It will be interesting to hear what the readers think of your proposal.)

Your letter was passed for comment to cognizant officials of BuPers—and returned with this statement:

"It is not considered feasible or practicable for a young man of 21 or less to enter into a 16-year contract. At present,

if a man decides he does not want to make a career of the Navy, he has only to wait until the end of his enlistment to get out. However, if a man signs an agreement to stay in the Navy for 16 years and then, two or three years later, decides he does not want to stay in, then you have a trouble area."

As a matter of coincidence, the new STAR Program went into effect just about the time your letter was received. This program has several career programs; and a man entering the program becomes "career designated." Although he does not "contract" for 16 or 20 years' service, he does, for all purposes, extend his first enlistment so that it will total at least seven years. See October issue of ALL HANDS (page 44) for more on the STAR Program.—Ed.

Pro Pay and NESEP

SIR: A YN2-P1, here at Newport, R.I., was transferred on 31 May 1960 to Commander, U.S. Naval Training Center, Bainbridge, Md., for orientation and final selection for NESEP (the Navy Enlisted Scientific Education Program).

I believe his pro pay should have been revoked on 30 May 1960, in accordance with Paragraph 9g of BuPers Inst. 1430.12A, which calls for such action:

"If the member is reassigned to any duty not requiring the skill on which the proficiency pay is based, including permanent assignment to a course of instruction outside the skill . . ."

My chief contends that this man's assignment would be more in the nature of "Temporary duty or temporary additional duty while attending courses of instruction," and that therefore, under Paragraph 10e of the instruction, the man would retain his pro pay.

Which is correct?—R.M.F., YN3, USN.

• You're right. The man's pro pay should have been revoked on 30 May 1960. Prep schools have now been issued special instructions to cover such cases.

Incidentally, although we don't know what sort of a fellow your chief is, we'd suggest you use tact in telling him he's wrong.—Ed.

Shore Duty Prospects

SIR: Could you give me any information on my shore duty status?

My current tour of sea duty commenced in May 1952. Approximately when might I expect to receive orders to shore duty?—R.L., BM3, USN.

• We don't want to discourage you, Boats, but the Seavey-Shorvey experts tells us that BM3s with as much as 10 years' more total naval service than you have are still waiting for orders.

All shore requirements for your rate are filled through December 1960. Perhaps you will receive orders next year. That, however, will depend upon requirements.—Ed.



SUPER SERVICE AT SEA — Destroyer USS Willard Keith (DD 775) moves in alongside USS Forrestal (CVA 59) to receive supply of fuel while at sea.

CPO Collar Device

SIR: Apparently many chief petty officers haven't looked at *Uniform Regulations* which shows how to wear the collar insignie that became part of their uniform nearly two years ago.

Whenever I walk into the chiefs' mess I see many CPOs wearing the device incorrectly. Since these chiefs haven't looked at the regulations so far, they probably will not in the future. Maybe ALL HANDS can square them away.—G. E. S., BMC, USN.

SIR: I don't see how some of our chief petty officers expect junior men to follow uniform regulations to the letter

when they can't even take a uniform change in stride themselves.

Almost two years ago a collar insignie was authorized for CPOs to be worn on their khaki, blue flannel, white tropical and khaki tropical shirts. I still see many chiefs who wear them incorrectly. In fact, the chief master at arms here at the station wears his insignie in the wrong position. He seems to know the uniform requirement for white hats, however.

Somebody should take these chiefs by the hand and show them how to wear their uniform.—G. F. M., QM1, USN.

• We're not in business to square away chiefs or to hold their hands, but we too, have seen the collar insignie being worn incorrectly.

We took your advice and looked in the book, and we found these answers: First of all, Article 0655 says that the shirt collar insignie should be of a size to be inscribed in a circle 15/16ths of an inch in diameter, and it must be worn on the collar tips of the khaki shirt, blue flannel shirt, khaki tropical shirt and white tropical shirt.

In appendix B of "Uniform Regulations," we found a diagram which shows exactly how the chief's insignie should be worn on the collar of the khaki and blue flannel shirt. The correct way to wear the collar insignie on the khaki or white tropical shirts is shown in the same appendix, but lieutenant's bars are used, not the chief's insignie. Both are worn in the same manner, however.

The drawings here show how the CPO collar device should be worn on both the closed neck (blue flannel and khaki) shirts and the open neck (white and khaki tropical) shirts.—Ed.



LOCK UP — USS Thrush (MSC 204) transits Panama Canal from her Atlantic base to take on Pacific job.



CHOP CHOP—M. J. Lee, SN, USN, swings ax to part tow line on board USS Jason (AR 8) during towing drill.

Let's Get Our Ratings Right

SIR: When I first opened the mail that brought your August issue, I glanced at the picture on the cover and thought to myself, "Now there is a hard-working mechanic."

Since there were some applicants here in the recruiting station at the time, and I had other things to do, I didn't get a chance to look through the magazine until the office had cleared out. Then I opened our copy and read this inside: "FRONT COVER: PLANE DOC—An Aviation Electrician's Mate tracks down a trouble spot in a Navy plane's electrical system. AE's are part of the enlisted ground team whose training and skill keep Navy wings in the sky."

Whoever wrote this caption slipped up somewhere. The rating insignie on the man's cap is that of an Aviation Machinist's Mate—not an AE.—John R. Campbell, AM1, USN.

SIR: In your August issue you identify the man on the cover as an Aviation Electrician's Mate. Why is he wearing an Aviation Machinist's Mate's insignie on his cap?—Johnny M. Kirkland, SN, USNR.

SIR: The man on the cover of your August issue is wearing the insignie of an Aviation Machinist's Mate—not an Aviation Electrician's Mate as you said in your caption. Who goofed?—Vincent P. Cara, YN1, USN.

• *The identifying material that was on the back of that photograph when we received it didn't give the name of the man in the picture. It simply called him an Aviation Electrician's Mate.*

Whether or not he actually is an AE he was certainly wearing an AD's cap. To you and to the writers whose letters

were still coming in as we went to press, many thanks.—Ed.

Course for Signalmen

SIR: I have just received the training course *Signalman 1 & C* (NavPers 10136) and have some questions about it.

First, how many chief signalmen participated in writing and reviewing this publication?

Second, would you please clarify the differences between the Events Log (p. 97), the Signal Record Book (p. 99) and the Visual Log (p. 125)? These pages state that local zone time is used for entries. Why not use Greenwich Time for quick recognition of time differences?

Third, why doesn't the preparation and responsibility of the Watch, Quarter & Station Bill belong to one individual?

Fourth, why is it that the qualifica-

tions for advancement at the end of the course do not cover the material in the course?

Fifth, is the Naval Communications Bulletin still published? — C.W.N., SMCA, USN.

• *It sounds as though you are not too happy with the course. Permit us to reassure you:*

No. 1—Although no chief signalmen were originally assigned to prepare the text, two SMCs gave professional guidance and participated in the review.

No. 2—The Signal Record Book (p. 97) and the Visual Log (p. 125) are the same. The correct title is Visual Log. As there is no requirement in DNC-5B for a separate "Events Log," information about this log will be omitted in the next revision. DNC-5B required local time entries in the Visual Log when Signalman 1 & C was printed. However, a recent change to DNC-5B requires Greenwich Mean Time rather than local time. The next revision of the course will reflect this change.

No. 3—Pages 100 and 101 emphasize the importance of the joint effort between the leading signalman and the division officer in preparing the Watch, Quarter & Station Bill. The division officer has the responsibility as stated on page 100—even though the leading signalman may prepare it. It is Navy tradition that work may be delegated but responsibility cannot be avoided.

No. 4—The qualifications are not designed to cover the material in the course. Fact is, the reverse is true. A primary objective in the preparation of any training course is to cover the advancement quals (the duties of the rating concerned).

No. 5—The Naval Communications Bulletin is still being published. Its address is: Chief of Naval Operations, (Attn: Editor, Naval Communications Bulletin), Navy Department, Washington 25, D.C.

Here's hoping that we have satisfactorily answered your questions.—Ed.

How USS L-4 Got to Richmond

SIR: The letter in your June 1960 issue—about the trip of USS L-4 up the James River to Richmond, Va., in 1920—was very interesting.

Such a trip must have been quite an accomplishment, for (as I recall) it was not until the 1930s that steps were taken to deepen the channel of the James between City Point, Va., and Richmond to permit the passage of deeper draft vessels.

The item mentioned L-4's skipper at that time, LT Ralph O. Davis, USN, who is now a retired vice admiral. Knowing he'd be interested, I sent him a copy of the magazine. In return, he sent me his own account of the cruise, which I thought you might like to pub-

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS MAGAZINE, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• **USS Peiffer (DE 588)**—The fourth annual reunion will be held in Oyster Bay, Long Island, N. Y., on 18, 19 and 20 Aug 1961. For more details, write to CAPT T. N. MacIntyre, USNR, 102 Ivy Street, Oyster Bay, Long Island, N. Y.

• **91st Seabees**—Another reunion of the "Southern 91st" is scheduled for the near future. Shipmates wishing to attend may write to Emmett Brown, 3200 N.W. 79th Street, Miami, Fla.

• **Naval Aviators**—If you are, or ever have been a naval aviator, your name and address is desired by the Public Information Officer, Chief of Naval Air Basic Training, NAS Pensacola, Fla., for the purpose of sending invitations for the celebration of the 50th anniversary of Naval Aviation during June 1961.

• **Billet Analysis Section, Standards and Curriculum Division, BuPers, Washington, D. C.**—All officers attached to this unit during World War II who are interested in holding a reunion with time and place to be decided may write to Fred W. Steurnagel, Room 212, Coldman Building, East St. Louis, Ill.

• **'Baker Division,' USS Missouri (BB 63)**—A reunion is planned for those who served during the period 1949-1953, with time and place to be decided by mutual consent. Those interested may write to Glen Killen, 129 Burbank Avenue, Rockford, Ill.

The Call of the Seabees

SIR: I would like to strike for construction mechanic. Is there any way I can be transferred to a Seabee construction battalion? I have tried to find out about this, but no one seems to know if it's possible. — P. D. C., SN, USN.

• *Right now it's not possible, as the Seabees have too many strikers. For that reason, changes to constructionman or constructionman apprentice from other apprenticeships are not being approved.*

For your future references, however, the basic regulations for changes in rating are contained in the "BuPers Manual," Article C-7213, and in BuPers Inst. 1440.5C.—Ed.

lish as a follow-up to the original letter.—CDR S. T. Hay, Jr., USNR.

• *Thank you, Commander. As you can see below, we are passing the admiral's letter along to our readers.—Ed.*

SIR: In the autumn of 1920, L-4 was based at Norfolk, where the L-boats had just established a primitive sub base. Sometime before Navy Day I received orders from the Navy Department to proceed to Richmond with L-4. Since a submarine had never visited that city, we were to provide the big Navy Day event there.

I acknowledged the orders, and stated that I was fully prepared to proceed up the James River. However, I also respectfully reminded the Department that L-4 drew more water than the upper James provided.

The Department replied that it already knew I might not be able to reach my destination, but that I was to proceed nevertheless with the best river pilot available. I was also given the comforting information that I would

not be held accountable if I failed to reach Richmond.

I secured a pilot who was famous for taking a German "merchant" submarine to Baltimore. Then, I lightened the boat in every way possible, and we sailed.

Although we pushed through almost as much mud as water, we managed to make Richmond at about our ETA, and were greeted by a large and enthusiastic crowd. Both the Mayor of Richmond and the Governor of Virginia were on hand.

Next day—Navy Day—we put on the big event by diving with those VIPs on board. Although we found the deepest part of the river off Richmond, we were unable to get our conning tower underwater when we settled down in the mud. Still, to the guests sealed up on board, this was a momentous occasion.

Richmond entertained us royally—both officers and enlisted men—and all of us had a memorable time.

—VADM Ralph O. Davis, USN (Ret).

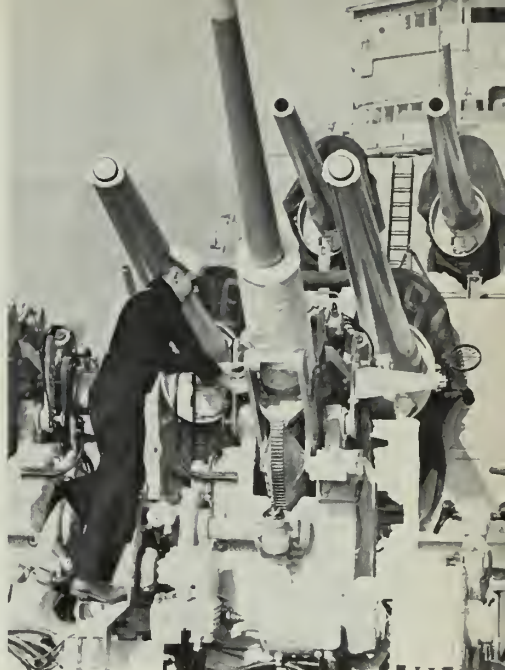
Ships in Mothball Fleet

SIR: In next to the last paragraph of the article "Navy's Mothball Fleet" (August 1960), I came across a statement which I think is incorrect. It says that all major ships must be scrapped in the United States.

If I remember correctly, *uss Guadalcanal* (CVE 60) was towed to Japan and scrapped. Recent press reports state that her tow line parted at sea and she was adrift in the Pacific for a few days.

I am interested in this matter because we have the ship's bell mounted at our barracks here at the New York Naval Shipyard. It was presented to us by the Navy Department as a ship's relic.—Sergeant Major R. L. N., USMC.

• *Guadalcanal (CVU 60)—she was changed from a CVE—was, as you re-*



SPIC AND SPAN—Cruiserman shines up three inch guns of USS Des Moines (CA 134) before entering port in Med.

*member, towed to Japan and scrapped. Also, the former *uss Mission Bay* (CVU 59) (another utility aircraft carrier) was towed to Japan and scrapped by the same company.*

Before the Japanese were authorized to export the hulls of these ships, however, they received special permission from the Department of State. The Chief of Naval Operations allowed the hulls of these CVUs to be exported because he considered them auxiliaries and not combatant ships.

As a general rule, however, the Navy does require that the hulls of major ships (mostly combatants, but not limited to combatants) be reduced to scrap in the United States.—Ed.

...how to send ALL HANDS to the folks at home

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★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



SILHOUETTE IN SUNSET — The setting sun forms a pleasing nautical scene for carriermen as it backlights Atlantic Fleet DER, *USS Camp* (DER 251).

YO Can Go

With the recent departure of *uss Crownblock* (YO 48) from Reykjavik harbor came the end of a sight familiar for many years to Icelanders—that of a Navy ship regularly on duty there. Now at Norfolk, Va., *Crownblock* was serving in that island-country in a support role for the Iceland Defense Force.

Official designation of *Crownblock* is "self-propelled fuel oil barge." However, she has deep-sea capabilities. Some 235 feet in length, she has a 26-man crew. In addition to her fuel oil storage capacity, *Crownblock* has a three-decks-deep hold for dry cargo storage. This space was put to good use this spring when a shortage of Icelandic ships made it necessary for her to haul cargo to the radar sites at Langanes, Hofn and Latrar.

Survivor of a typhoon off Japan in the mid-forties, *Crownblock* is a "get around" ship. On her bridge are

painted ribbons of the American Theater, Asiatic-Pacific Theater, World War II Victory, Occupation (Asia).

Arriving at Iceland about a year before, *Crownblock* had replaced the smaller YOG-32 which, in turn, had completed a tour in Iceland.

Scamp Launched

The Navy will send its 21st nuclear-powered submarine down the ways this month when *Scamp*, SS(N) 588, is launched at the Mare Island Naval Shipyard, Vallejo, Calif.

The fourth atomic sub to be built by Mare Island, *Scamp* is an attack submarine.

The World War II submarine *uss Scamp* (SS 277) was lost in late 1944 on her eighth patrol. On her first seven patrols the earlier *Scamp* sank several enemy ships including the Japanese submarine I-24.

The latest *Scamp* will be commissioned in 1961.

Top ASW Squadrons

Top Navy squadrons, from Rhode Island to Bermuda on the East Coast and from California to Hawaii on the West Coast, have been awarded the Captain Arnold Jay Isbell trophy for excellence in Air Antisubmarine Warfare during fiscal year 1960.

The award, which was made for the first time last year, goes annually to a naval aviation squadron which achieves excellence in air antisubmarine warfare. The actual trophy remains in Washington, D.C., but engraved plaques are presented to the winning squadrons for their permanent custody.

Captain Arnold Jay Isbell, usn, for whom the trophy is named, distinguished himself during World War II for his work against enemy submarines harassing convoys between the United States and North Africa.

East Coast squadrons named as 1960 winners are *Patrol Squadron 18*, Jacksonville, Fla.; *Patrol Squadron 49*, Bermuda; *Air Antisubmarine Squadrons 22 and 32* (they were a combined squadron during competition), Quonset Point, R. I.; and *Helicopter Squadron 9*, also at Quonset Point.

Winners on the West Coast included *Patrol Squadron 28*, Barber's Point, Hawaii; *Patrol Squadron 48*, North Island, San Diego, Calif.; *Air Antisubmarine Squadron 37*, Long Beach, Calif.; and *Helicopter Squadron 2*, San Diego, Calif.

MSTS Smart Ship Award

Since the majority of ships assigned to the Military Sea Transportation Service are manned by civilian marine (Civil Service) personnel and their missions do not qualify them for battle efficiency competition, they compete among themselves each fiscal year for the MSTS Smart Ship Award for Excellence and Reliability.

The Smart Ship Award is an engraved bronze plaque presented to the highest graded ship within each competitive group. Ships retain possession of these plaques until released from MSTS service. Ships may win this award more than once.

The Navy (USS) ships assigned

YESTERDAY'S NAVY



On 1 Nov 1943 a naval amphibious force landed the First Marine Amphibious Corps for the invasion of Cape Torokina, Bougainville. On 7 Nov 1861 the sidewheel steamer *Tyler* and the ironclad *Lexington* assisted Union troops under then BGEN Ulysses S. Grant in an action against the Confederates at Belmont, Mo. On 11 Nov 1918 the armistice ending World War I was signed. On 18 Nov 1867 a tidal wave in the Virgin Islands picked up *USS Monongahela*, threw her over buildings and into the streets of the town of Frederickstadt, then returned her to a coral reef at the water's edge.

to MSTs and the civilian-manned (USNS) ships both compete for the Smart Ship Award. Because of their mission, the USS ships of MSTs do not compete for the operational efficiency award as do other U.S. Navy ships.

Of the MSTs ships that win the Smart Ship Award, one ship, USS or USNS, is selected each year as the Smartest Ship in the entire MSTs Fleet. If a USNS ship is selected, she is authorized to fly from the gaff while in port, a blue pennant with a large E and MSTs in gold letters. If a USS ship is selected, she is authorized to fly the Battle Efficiency Pennant.

In addition, each member of the crew (USNS or USS) receives an individual award. Individual awards, with a replica of the Smart Ship Award Plaque embossed on each item, may be seen on cigarette lighters, belt buckles, money clips, and in case of nurses, stewardesses and WAVES, on bracelets and brooches. The names of individual recipients are engraved on these awards. Enlisted Navy personnel also receive a Navy E to sew on their uniforms.

For fiscal year 1960, USNS *Harris County* (T-LST 822) in addition to winning the Smart Ship Award, was selected as the Smartest Ship in MSTs.

Other Smart Ship Award winners were:

USNS *General Edwin D. Patrick* (T-AP 124)
 USNS *Geiger* (T-AP 197)
 USNS *Breton* (T-AKV 42)
 USNS *Private Joe E. Mann* (T-AK 253)
 USNS *Towle* (T-AK 240)
 USNS *Herkimer* (T-AK 188)
 USNS *AKL 17*
 USNS *Rincon* (T-AOG 77)
 USNS *LSM 335*
 USNS *ATA 240*

Invents Underwater Camera

A U. S. Navy battle lantern and a carrierman's ingenuity combined recently to produce a unique new kind of underwater camera.

The inventive Navyman is Edward J. Lamb, AT1, USN, serving aboard the attack aircraft carrier USS *Independence* (CVA 62.) *Independence* is currently making her maiden cruise with the 6th Fleet in the Mediterranean. While operating in deep water in the Tyrrhenian Sea off the southwest coast of Italy, she sustained damage to her screws.



STRANGE GEAR—USS *Argo* (ARS 27) has been fitted out for research with U. of California's Scripps Institution of Oceanography under contract with ONR.

Ship's divers sent below came up with the information that underwater pictures would have to be taken to make possible a better evaluation of the extent of the damage. But—there was no underwater camera readily available.

Here's where Lamb got his chance to shine. Armed with the approval of the ship's Damage Control Officer, a standard K-10-A battle lantern, two valves, a piece of wire, and a regulation camera, he retired to an out-of-the-way nook and went to work.

Lamb, it should be noted, is, in addition to being the tinkering sort, an underwater photography enthusiast, and president of *Independence's* underwater diving club, the "Gill-men." Apparently he put the knowledge gained in more than five years of aquatic shutter-snapping to good use, for in less than 24 hours he came up with a makeshift, but workable, underwater camera. When one of the ship's regular divers took it down to photograph the damage, it worked perfectly.

Iwo Jima, Amphib Assault Ship

The amphibious assault ship *Iwo Jima* (LPH 2) has been launched at the U.S. Naval Shipyard, Puget Sound. She is the first ship to be built from the keel up as an amphibious assault ship.

Iwo Jima will boost the vertical envelopment potential of our assault forces. The theory of helicopter-landed assault troops was first developed at the Marine Corps training

school, Quantico, soon after WW II.

The first combat test of vertical envelopment came during the Korean war. Operations under wartime conditions supported peacetime findings. Since 1953 the U.S. Marine Corps has trained battalion landing teams in the techniques of the new assault principle.

To the Marines, vertical envelopment means they won't have to face a beachhead landing. They will be flown by helicopter with their equipment behind enemy lines.

FLYING DD? — No, it's P5M wing mounted on USS *Glennon* (DD 840) to carry instruments for use in echo sounding and hydrofoil experiments.





TOURING EUROPE — USS Barry (DD 933) visits Ostend, Belgium. Rt: Desflot 4 Band plays at Penzance, England.

Twelve Ports of Call

The Atlantic Fleet destroyer *uss Barry* (DD 933) added 12 Northern European ports to its list of new places visited this year. The ship and her crew joined in recognition of national observances, naval reviews and local festivals and regattas, and they also welcomed more than 50,000 people aboard during open houses at their various stops, besides meeting many thousands more during liberty ashore.

Barry's crewmen also got a good look at their hosts—and came back with a feeling of kinship and a lot more knowledge of our allies. They had a whale of a good time, too.

After a brief stop at Portsmouth, England, the cruise got underway in earnest with a nine-day stop at Kiel, Germany. There *Barry* and ships of seven other navies participated in "Kieler Woche" (Kiel Week) activities.

A dead-eye performance by *Barry's* rifle team highlighted the Kiel visit. The destroyer sharpshooters topped opponents from seven nations to win the Sixth International Miniature Rifle Contest—a competition which actually dates back to 1911 when the Brunswiker Guild, host for the shoot, invited a visiting U. S. cruiser's team to compete.

Also creating something of a sensation in Kiel was the Destroyer Flotilla Four band, which accompanied *Barry* on the cruise. They brought down the house with both official and impromptu concerts featuring American jazz. In addition many bandsmen "sat in" with local night club bands during their liberty time.

Moving on from Kiel to Rotterdam, The Netherlands, *Barry* took part in the "Floriade," an Interna-

tional Horticultural Exhibition. The band furnished ceremonial music for a 50-star flag-raising ceremony on the Fourth of July, and that evening presented a concert before a large crowd at the Floriade Bowl. Later they staged a jam session on the steps of the city hall, to the delight of hundreds of pedestrians.

From Rotterdam, *Barry* sailed to Helsinki, Finland, and the most overwhelming reception of the entire cruise. Despite the fact the ship changed berthing spots at the last minute, many Finns waited on the quay to see them. Shortly after *Barry's* arrival the quay was packed with smiling people eager to see and talk to U. S. sailors.

Finnish newspapers and radio stations provided wide news coverage of the visit. By the time *Barry* departed, press coverage had mounted to the thousands of column inches,

including dozens of pictures.

Another high point of the Helsinki stop was a basketball game played between *Barry's* squad and a top local team. More than 400 fans crowded into the gym to see their best amateurs and semi-pros (including two Olympic team candidates) play against *Barry's* hustling hoopsters. The sports-loving Finns, like other Europeans, were as much impressed by the sportsmanship and spirit displayed by the visitors as by their ball-handling and shooting skill.

The Helsinki visit also featured wreath-laying ceremonies at the war heroes' tomb, and at the Tomb of Finland's national hero, Marshall Mannerheim. Doing the honors were RADM A. R. Gralla, usn, Commander Destroyer Flotilla Two, and a 75-man honor guard from *Barry*.

Stockholm and Goteborg, Sweden; Copenhagen, Denmark; and Ostend, Belgium, were next ports of call, and *Barry* and her crew got enthusiastic receptions in each. At Ostend, for example, *Barry's* skipper, CDR J. T. Law, usn, staged a brilliant demonstration of ship-handling skill in neatly transiting locks and channels barely wider or longer than the ship itself. *Barry* became the largest ship ever to berth where she did, and many Belgian naval officers and visiting captains from other countries were loud in their praise of the seamanship of her skipper and her crew.

Returning to England, *Barry* joined in regatta festivities at both Cowes and Penzance.

Barry also visited Brest, France, and Lisbon, Portugal, before joining other ships of Destroyer Squadron 24 in Gibraltar, and heading back to duty in the United States.



IN FINLAND — Visit of destroyer USS *Barry* included wreath-laying ceremonies at the war hero's tomb.

Breaking the Ice

The worst ice in five years in the Arctic region north of Point Barrow, has been making life miserable for shippers this summer. It was these conditions that brought *uss Burton Island* (AGB 1) into the role of rescuer.

A tongue of ice extending from the polar pack almost to Point Barrow had trapped the Seattle-based commercial tug *Mohawk*. *Burton Island* was dispatched to the scene and upon arrival put into effect a "ve-break, you-follow" doctrine.

By evening of the first day, however, it had become necessary to have the tug take a position "in the notch," that is, to close up to within a few feet of the ice breaker's stern. This procedure is used when ice closes in too rapidly for the following ship to remain clear of it.

Later in the evening, while *Burton Island* was stopped for engine repairs, heavy ice collected at *Mohawk's* stern, damaging her rudder.

The greater part of the following two days was spent lying to, because of poor visibility. During short periods of good visibility it was discovered that the ships were in 10/10ths ice, with numerous pressure ridges. A helicopter flight showed that there were no leads or open water in the area.

Three attempts were made to maneuver free of the ice. Each time, the towing rig broke. At 2000 on the third day the icebreaker set out to break a channel through the ice.

She returned to *Mohawk* the afternoon of the fourth day and placed her once again in the notch. Then they began a slow passage through the five-mile channel the icebreaker had previously cleared.

A tow rigged in such a manner acts like a rudder. Unable to maneuver a sharp turn, both ships once again became locked in the ice. Then came an attempt to break free by sallying ship—that is, by pumping large volumes of water through 24-inch lines from tanks on one side of the ship to tanks on the other side. Though usually an effective method the sally ship try was not successful this time.

Next came an attempt at ice blasting. Though 150 pounds of demolition were used, the ship remained locked in the ice. Late that evening, at 2317, *Burton Island* again "broke to tow" to *Mohawk* and again attempted to charge open a channel through the ice. By midnight the efforts paid off. The two ships crept toward Point Barrow.

Another copter reconnaissance was made on the fifth day. It showed that the ships were about seven miles from a large lead that probably ran all the way to safety. By this time the ice had broken into large floes and these would endanger the crippled tug if she were left alone for a long period. The only way out was for the icebreaker to cast loose its tow, break ice for a short distance, then return to the tug and tow her that distance; then to cast her loose again and repeat the process.

Late the evening of the sixth day, after much around-the-clock work by all hands, the ships finally entered open water. They made Point Barrow the following day.

Burton Island is one of the icebreakers responsible for keeping summer shipping lanes open so that Distant Early Warning sites can be resupplied.

From Keel Up, She's All DDG

uss Charles F. Adams (DDG 2), the first ship built from the keel up as a guided-missile destroyer, has joined the Fleet.

The 431-foot ship named for a former Secretary of the Navy, has a standard displacement of 3370 tons. Improvements in habitability incorporated in the new destroyer include air-conditioning of all living quarters. Her armament consists of the surface-to-air guided-missile *Tartar*, five-inch 54 rapid-fire guns and the latest antisubmarine weapons including *Asroc*. The ship's complement is 24 officers and 330 enlisted men.

Store Ship Stores Up Records

Uss Aldebaran (AF 10) may not be the youngest ship in the Fleet, but she's still got plenty of zip.

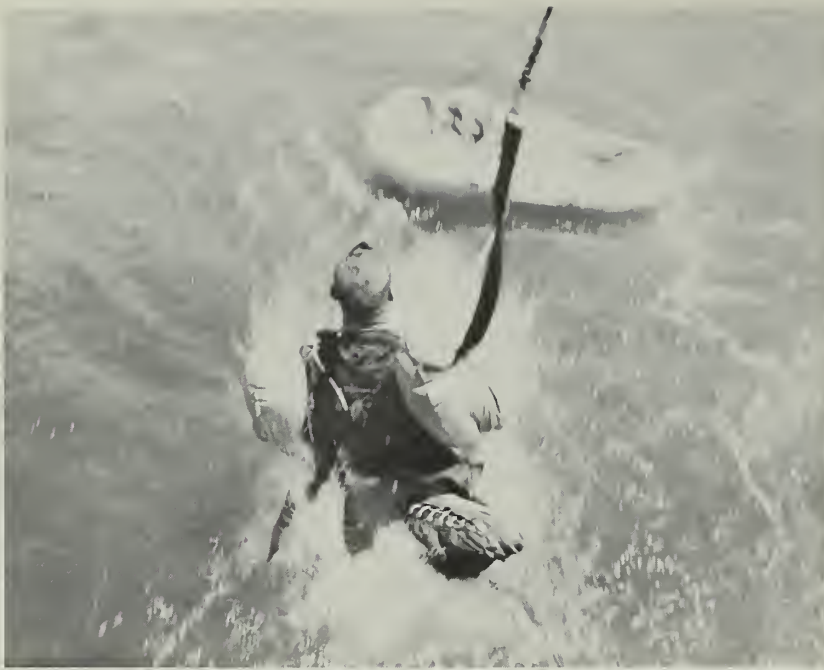
During her deployment with the Sixth Fleet in the Mediterranean the 20-year-old underway replenishment store ship set two new records for transferring supplies from her decks to those of combatant ships.

While stocking up *uss Franklin D. Roosevelt* (CVA 2), *Aldebaran* hit a pace of 153.5 long tons per hour, to set what she believes to be a new Fleet record for the underway replenishment of a carrier. (The old record, 135.6 long tons, had been claimed by *Alderbaran* herself in 1959—also with *F.D.R.*)

Not content with just the carrier record, *Aldebaran* went on to chalk up a record in a different category the same day. This one—151.5 long tons per hour—was for the underway replenishment of a cruiser. It topped a mark of 101.1 long tons, which had been established in 1959 by *uss Hyades* (AF 28).

SHIP-SIDE SERVICE—Store ship *USS Aldebaran* (AF 10) rides high as she returns from supply mission at sea.





AIR FORCE DUNKING — USAF pilot hits Pacific in chute harness. Navymen drag him to simulate chute in heavy seas as he frees himself and swims to raft.

Wet Blue Yonder

"Off we go into the wet blue yonder" might be a fitting theme song for a group of Navymen out at Point Mugu, Calif.—they're teaching the Air Force a lesson by throwing some of its pilots into the Pacific Ocean.

The Air Force asked for this sort of treatment, so the Navy obliged with a series of one-way boat rides. The pilots who've made these trips have found them most educational, for they're designed as practical lessons in what to do if forced down at sea.

According to estimates drowning causes about 10 per cent of the fatalities that occur when pilots are forced to eject themselves from their planes. Concerned over this problem, aviation safety officers at the Air Force Base, Oxnard, Calif., consulted their Navy counterparts at Point Mugu to find out what could be done to prepare the Air Force men for over-water emergencies. The boat rides began when the Navy and Air Force safety officers agreed the best place to learn about such things was in a genuine ocean.

The trips, made in a Navy crash boat, are no pleasure cruises.

Wearing parachute harness, minus the parachute, a pilot is dropped off the boat, then dragged through the cold water on a tow line as the boat proceeds at a speed about equal to the pull of a heavy sea on a para-

chute. The pilot is supposed to respond by freeing himself from the harness and swimming to a nearby life raft. After that a helicopter hoists the soggy, but wiser, airman off the raft and flies him to shore.

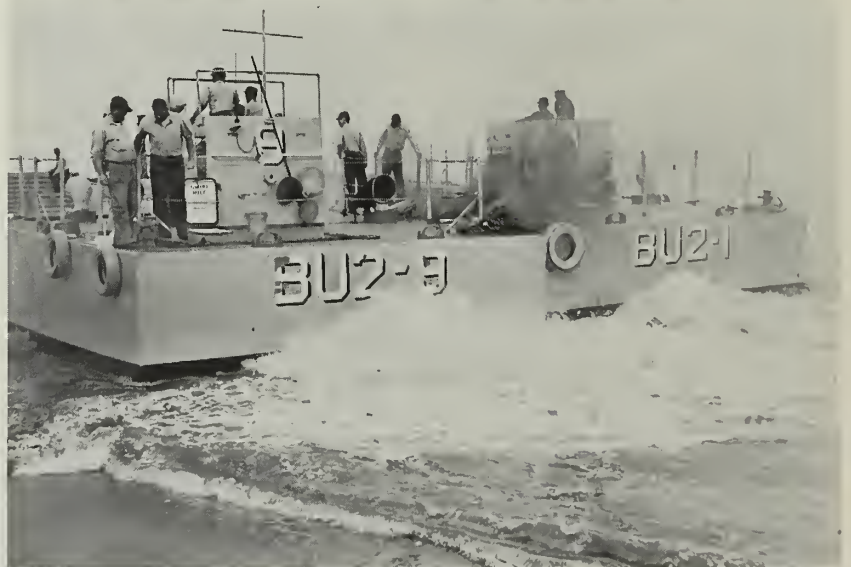
One of the main things accomplished by all this is to get the pilot over the "Panic Barrier" which a dunking in the open sea sometimes creates. This fear is thought to be an important factor in the high fatality rates among pilots forced down at sea. The training sessions have

also shown that many of the pilots don't know as much as they should about freeing themselves from their parachutes—especially when they're being dragged along by sea currents—and that the airmen need to be taught how to enter a life raft.

According to LT "Gabby" Haynes, the Personal Equipment Officer at Oxnard, nine out of the first 68 pilots who were dunked were unable to get out of their harnesses and would have drowned if the dunking had been the real thing. Two others punctured their life rafts while climbing aboard, and would have died of exposure if help had been very far off. To keep anything like that from happening during the training sessions, Navy frogmen stand by on the crash boat to assist any pilot who gets into serious trouble.

The operation has been called a complete success by LTCOL Vernon Henderson, Commander of the 437th Fighter Interceptor Squadron. Navy Coordinator for the project is LCDR Archie L. Mills, Aviation Safety Officer at the Pacific Missile Range Headquarters located at Point Mugu.

LCDR Mills worked out the method of simulating open sea ejection conditions by towing the parachute-harnessed pilots from a crash boat. This is something new for the Navy, as well as the Air Force, and its success may lead to its adoption elsewhere. Plans are already being made for all Navy pilots at Point Mugu to undergo the training.



SAND BLASTING — Two Mike boats from Little Creek, Va., churn up sand bars in an effort to dislodge shoaling that has been blocking Lynnhaven Inlet.



VENICE VISIT—ComCruDiv Two band plays in St. Mark's Square. Rt: Navymen enjoy cruising Venice 'streets.'

Sailing Down the Sidewalks

FOR FIVE DAYS personnel of the heavy cruiser *uss Newport News* (CA 148) traded their large Navy ship for the gondolas and canals of Venice, Italy. A sailor's liberty in Venice is somewhat akin to a busman's holiday, but the cruisemen took to the bustling water traffic of the city in seamanlike manner.

As the ship moored only 300 yards from the famous St. Mark's Square, hundreds of American tourists gave the Navymen a hometown welcome. Ashore the cruisemen met new friends from their home state and even hometown. This, together with the warm greetings from the people of Venice made the visit a complete success.

The white uniform of the U.S. Navy set the style in St. Mark's Square. Up and down the Grand Canal and through the crowded

channels of the city the gondolas were crowded with the crew members of *uss Newport News*. Meanwhile Venetians visited the cruiser.

At shipboard parties for children approximately 200 youngsters were treated to a tour of the cruiser and a party of ice cream and cookies.

Children from a Venice orphanage visited the ship and were introduced to the game of croquet. The crew had brought the set to give to the orphanage but found that no one there had ever seen the game before. However, before the afternoon was over the *Newport News* "croquet instructors" had taught the game to them.

Each youngster was given a kite bearing the inscription "U.S. Sixth Fleet—Power for Peace" and for the next few days these could be seen flying over the houses of Venice.

CONCERT TIME—Band from *USS Newport News* was a big hit in Italian town.



STUDENTS from Scilla Institute visit cruiser. Below: A *Newport News* sailor feeds pigeons in the square.



Navy Sportsmen at Home and Abroad

In which some mostly belated recognition is paid a number of outstanding team and individual sports performances posted in recent months throughout the Navy.

Softball

A powerful ServLant softball team, representing the Atlantic Region, copped the 1960 All-Navy title at San Diego.

The Service Force Atlantic juggernaut racked up four straight wins in the five-team battle for Navy-wide softball supremacy. This year's tourney was conducted on a round-robin basis, rather than in double-elimination form as in past seasons.

Brilliant pitching by Ralph Maxey, Jim Cheeseman and Forest (Lefty) Dill featured the Norfolk-based ServLant club's drive to the championship. The three ace twirlers combined their talents to shut out three of the four teams they faced.

After edging the NavAirPac Packers, Pacific Coast Region standard-bearers, 4-3 in a tense struggle opening day, the ServLanters blasted NAS Willow Grove, North Atlantic Region titlists, 14-0 as Cheeseman spun a masterful no-hitter; topped Western Pacific Region representatives NavComSta Pearl Harbor, 6-0 behind Dill; and, in their fourth and final game, shaded NAS Pensacola, South Atlantic Region champs, 2-0 as Maxey took his turn at wielding the whitewash brush.

Later, representing the Navy in the All-World softball meet at Jones Beach, N. Y., ServLant was eliminated by the Gardena, Calif., entrant by a 3-0 score, but not before they had downed Cuba, 5-0 as Cheeseman tossed a beautiful one-hitter. The Cuban pitcher singled in the



GREAT GUNS — Herbert C. Haller, MMC, receives Distinguished Marksman Badge from RADM M. E. Dorin.

sixth inning to become his team's only baserunner, and ruin Cheeseman's bid for a perfect game.

Other All-Navy tournament results: *First day*—NAS Pensacola 2, NavComSta Pearl 0. *Second day*—NAS Willow Grove 4, NAS Pensacola 3; NavAir Pac 6, NavComSta Pearl 1. *Third day*—NAS Willow Grove 4, NavComSta Pearl 1; NavAir Pac 1, NAS Pensacola 0. *Fourth day*—NAS Willow Grove 3, NavAir-Pac 2.

Distinguished Marksman

Chief Machinist's Mate Herbert C. Haller, usn, small-arms coordinator on the staff of Destroyer Flotilla Three, has been awarded the Distinguished Marksman Badge.

Already a holder of the Distinguished Pistol Badge, Chief Haller becomes the 21st man in the history of the Navy to achieve such double distinction.

A 27-year Navy veteran, the Chief first took up shooting in 1934 while serving in the battleship *uss Nevada* (BB 36). He has won more than 60 medals and trophies in rifle and pistol meets of varied caliber over the years.

Champs in Three Sports

Captain L. W. Smythe, usn, who wears two hats as Commander, Naval Activities, Italy, and Commanding Officer, U. S. Naval Support Activity, Italy, is also wearing a big smile these days—and for good reason.

Three teams from his commands have won all the marbles in recent events staged here and in London, and the trophy case at his headquarters is bulging at the seams with three new trophies, plus several individual awards won by team members.

First the softball team swept to the CINCUSNAVEUR tournament championship, going undefeated though the three-day meet. Star pitcher Bill Baughman, CT2, usn, received the Most Valuable Pitcher award.

Then a six-man tennis squad journeyed to London and won the team title, and both the singles and doubles crowns as well.

Finally, a six-man golf team trekked to London's Mill Hill course and, playing in driving rain through the entire four-day event, made off with top team honors.

Team captain LCDR W. S. Anderson, MSC, usn, added Senior Division laurels.

Champions of Europe—Navywise—in three sports is a pretty good record, the Captain thinks. And the hot-to-go fan and sports booster plans to increase the size of the headquarters trophy case in anticipation of things to come. Based on past results, the additional space will probably be needed.

Tennis

A defending champ who refused to surrender his crown, a pair of "gutty" Chiefs who wouldn't give up, and a smooth-stroking Ensign from the Pacific Coast highlighted the week-long 1960 All-Navy Tennis tournament staged this year at NavSta Newport, R. I.

CDR Bill Foulkes, usn, defending Senior Singles champ and represent-

SOFTBALL SLUGGERS—ServLant softball team of Norfolk poses with trophies after winning the 1960 All-Navy Softball championship at San Diego, Calif.



ing the North Atlantic region, fought from behind after dropping a 5-7 first set to CDR Burt Smith of LantFlt to take the next two sets by 6-4, 6-3 counts and retain his title.

Later CDR Foulkes teamed with CDR Dick Williams to down PacCoast's CAPT Jesse Gay and LCDR Warren Cox, 9-7, 6-3, for the Senior Doubles championship.

PacCoast teammates ENS John Lesch and LTJG Dale Junta dominated Open Division Singles play. In the finals Junta copped a hard-fought 7-5 first set win, before Lesch stormed back to sweep three consecutive sets by identical 6-4 margins.

Lesch and Junta then joined forces to win the Open Doubles crown, but not before they had been given a run for their money by the NorLant twosome of Chief Aviation Machinist's Mate Leon Wilson and Chief Electrician's Mate (SS) Ed Krysiak. The veteran CPOs had battled their way into the finals the day before in an uphill, five-set thriller which lasted more than three hours. Dead game and dog tired, they succumbed to their younger opponents in the finals in straight sets, 6-3, 6-2, 6-3.

On the distaff side, SoLant's Anne Tetzloff, DKSN, USN, bagged the Women's Division Open diadem by downing Gwenda Anderson, PN1, USN, PacCoast standard-bearer, 6-3, 6-1.

Named to the squad which would represent the Navy in Inter-Service Leech Cup play were: Open Division—Lesch, Junta, Wilson, ENS Phil Berry, LantFlt, Gary Johnson, PN3, PacCoast, and LTJG Joseph Heyck, WesPac.

Senior Division — CDR Foulkes, CDR Smith, CDR Williams and CDR John Thompson, USCG, of SoLant.

The Navy fared not so well in Leech Cup competition. The Marines, paced by former Stanford great Jon Douglas, swept both team and individual honors.

Hawaiian "Little Olympics"

More than 350 athletes from 14 ships participated in the Second Annual Destroyer Flotilla Five Olympic Field Day at Pearl Harbor's Richardson Field.

Five new Field Day records were set, and the destroyer leader *uss John S. McCain* (DL 3) waltzed off with first-place honors, scoring six first places and a total of 65



DESTROYER CHAMPS—USS A. J. Isbell (DD 869) team representatives stand by awards that helped win 1960 Cruiser-Destroyer Force Athletic Award.

points during the course of the 18-event tourney. The escort destroyer *Taylor* (DDE 468) was runner-up with 37½ points, while third place went to the escort destroyer *Walker* (DDE 517) with 33½ points. Last year's champion, the escort destroyer *Philip* (DDE 498), was deployed to the Far East, and thus was unable to defend her title.

The Field Day program ranged from track and field through swimming and diving events, weightlifting, heaving-line toss and the tug-of-war.

Pearl Harbor Archery Title

Robert Carrow, QM1 (SS), USN, a crew member of the submarine *uss Greenfish* (SS 351), racked up 546 points to win the 1960 Pearl Harbor Submarine Force Intramural Archery tournament.

The 12-year Navyman bested his nearest challenger by 130 points in winning the title this year, after finishing second in the annual meet a year ago.

In the scant year and a half since taking up the sport, Carrow has also won a third place trophy in the Hawaii Armed Forces Field Archery Club match. Since winning the SubForce championship he's been transferred, bag, baggage, bow and quiver, to Groton, Conn., for duty in connection with the fitting out and commissioning of the Fleet Ballistic Missile submarine *Ethan Allen*, SSB (N) 608.

Two Aces in One Round

A hole-in-one is still a fairly rare sight on the links—but when two of them occur in the same round, it comes under the heading of a "gob-of-millions-to-one" shot.

That's exactly what happened, however, to two members of a four-

some playing a tune-up round for the 1960 10th Naval District tournament at the Berwind Country Club, San Juan, Puerto Rico.

Damage Controlman First Class Eugene Townsend blasted his tee shot on the 150-yard, par three seventh hole with a five-iron, and sure enough, in it rolled. Then, just six holes later, Chief Sonarman William J. Stockstad, also using a five-iron and not about to be outdone by his whitehat golfing buddy, pulled the same trick on the 165-yard, par three 13th.

Both Navy men are attached to the Fleet Training Group, Guantanamo Bay, Cuba.

Rifle and Pistol Matches

Upwards of 175 crack gun-slingers participated in this year's U. S. Navy Rifle and Pistol championship matches at Camp Elliott, Cal., and

TWO TIMER — Dick Hitchens, JO1, scored second hole-in-one on same green at Great Lakes, Ill., course.





SURE SHOTS—Top spot in All-Navy Rifle Team competition was won by Potomac River Naval Command team.

the highest scores ever recorded in this meet resulted.

All of the entrants were striving to place high enough to be among those selected to represent the Navy in the National Rifle and Pistol Matches at Camp Perry, Ohio.

Top shooters from each Fleet, and those Navy men holding "Distinguished" credits or National Rifle Association "Masters" classifications were among those invited to the Camp Elliott matches.

Individual and team winners were:

Individual Pistol—Chief Aviation Machinist's Mate John H. Lucas, USN, of PatRon 49.

Team Pistol—ComFive with a team aggregate of 1061. Team members were: ENS T. V. Weltner; ENS H. LeBlanc, Jr.; Chief Fire Control Technician R. H. Blake; and Chief Engineman K. E. Reed.

Individual Rifle—C. R. Bover,

A02, from the attack aircraft carrier USS *Independence* (CVA 62.)

Team Rifle—Potomac River Naval Command, with a team aggregate of 1435. Team members were: CAPT O. A. Finley; CDR G. S. Geisman; LTJG J. S. Sexton; LTJG K. L. Carlson; Chief Personnel Man J. T. Goodman; Chief Yeoman E. T. Barrett; J. R. Smith, SN; J. E. Allen, ADAN; and G. A. Krach, AN.

Pistol-Rifle Aggregate—LT L. A. Leitner, from NAS Pensacola.

Combat Rifle Team—Pacific Fleet team won ADM Arleigh Burke trophy in the combat rifle team match for the third straight year. The six-man team fired at silhouette targets from 600, 500, 300 and 200 yards, and recorded a 713 aggregate.

Team members were: LCDR R. J. Anderson; LT C. E. Tate; CWO W. Geil; Chief Quartermaster G. O. Lovinggood; Chief Torpedoman's Mate C. C. Kozlowski; R. N. Turnipseed, SH1; and J. D. McAdams, ET1.

In the Nationals at Camp Perry, where almost 6000 of the nation's top shooters competed, the only Navyman to win an individual event was LTJG Michael G. Bode from NAS Whiting Field, Pensacola, who won the International Free Pistol Match.

In addition, LTJG E. E. Oliver of VW-1 won the Navy Times award for placing as high Navyman in the National Trophy Individual Pistol Match; Chief Electrician's Mate H. L. Reissig, from NTC San Diego, won a similar award as high Navyman in the National Trophy Individual Rifle Match; and LTJG Sexton became a member of the President's Hundred. Placing 45th in the President's Hundred Rifle Match, he won the Crescent Cup as high Navyman.



IN WINNING the World Amateur title SubPac received the John Moore's Trophy valued at about \$20,000.

World Amateur Baseball Champs

Pearl Harbor's classy SubPac Raiders, perennial Navy baseball powerhouse, climaxed one of their most successful campaigns ever recently by winning the World Amateur Baseball Federation championship.

SubPac, augmented by five NAS Barber's Point and two Pearl Harbor Naval Base stars, downed a visiting U. S. Eastern All-American crew, mainland U. S. amateur champs, three games to one in a best-of-five series at Pearl Harbor Submarine Base's Millican Field.

In winning World Amateur honors the Raiders took possession of the John Moore's Trophy, one of the most beautiful, and valuable, athletic awards in existence. The massive, all sterling silver trophy stands more than four feet high, required more than eight months to build, and is valued at about \$20,000. It is named for its donor, an Englishman who was founder of Great Britain's Baseball Federation.

Emblematic of World Amateur Baseball supremacy, the John Moore's Trophy was created in 1938, and won that first year by England. Cuba took the prize in both 1939 and 1940, and the U. S. won it in 1941. No play-offs have been held since until this season. Permanent home of the perpetual trophy is located at the Helms Foundation in Los Angeles, Calif.

In the Millican Field series the Raiders, managed by savvy Warrant Officer Leo Gribkoff, USN, a long-time top drawer Navy athlete in his



NAVY'S WORLD CHAMPS—The powerful Pearl Harbor-based SubPac Raiders shown here won 1960 World Amateur Baseball Federation Championship title.

third season at the SubPac helm, bounced back to sweep three straight games after dropping the opening engagement to the Mainland All-Stars.

Southpaw Steve Jones whiffed 18 and surrendered but five hits in winning a tight 3-1 10-inning struggle—one of the few times this season SubPac bats had been so effectively silenced.

They were booming again from then on, however, as the Raiders stormed back to capture game two, 9-2, as three-year SubPac vet Hal Thompson tossed a three-hitter and struck out 15, while shortstop Herb Newman and first baseman Jim Tracy bagged two hits apiece; game three behind the flossy three-hit shutout pitching of Jerry Burcher, 11-0, as Tracy and outfielder Bob Harris paced the Raider's 11-hit attack with four and three safeties, respectively; and the clincher, 6-3, with Archie Ingram scattering eight hits and fanning nine, and outfielders Dick Gabel and Al Moore supplying most of the thunder—Gabel with four base-knocks in five trips, and Moore with a triple and a home-run.

Shortly after the conclusion of the World Amateur series, Manager Gribkoff and his raiders departed for Japan and a three-week good will tour. They were slated to play some 15 games against crack Japanese industrial and non-pro Federation clubs.

The World Amateur crown was the third honor chalked up by the SubPackers the past season. Earlier they bested four other Hawaii-based military teams to win Service Section honors in the tough Hawaii Major Baseball League. They then invaded Honolulu Stadium and topped the Civilian Section titlists, the Honolulu Braves, three games to one, to reign as over-all HMBL champions.

Football Hall of Fame

CAPT Fred (Buzz) Borries, Naval Academy '34, one of the greatest half-backs ever to lace on Middle gridiron togs, has been named to Football's Hall of Fame.

Now commanding officer of VR-21 stationed at NAS Barber's Point, Hawaii, CAPT Borries was a starting half-back for the Academy during the 1932-34 campaigns, and won All-American honors his senior year. He was also on the All-American basketball team that season.

NOVEMBER 1960



SIDELINE SUPPORT—Navymen visiting the Olympics while in Rome chat with member of U.S. gymnastic team.

The Captain confines his athletic endeavors to golf and bowling these days, but he doesn't have any trouble recalling his greatest thrill in football.

That would be the 1934 Army game, his last as a Middie, when Slade Cutter (now CAPT Slade Cutter, USN) kicked the field goal that gave the Midshipmen a thrilling 3-0 victory, and ended a string of 21 straight winless years against the Cadets.

Captain Buzz was inducted into the Hall of Fame along with such fellow football luminaries as John Lujack, Notre Dame quarterback, Clyde (Bulldog) Turner, famed Hardin-Simmons and Chicago Bear center, Sid Luckman, all-time great quarterback of the Columbia Lions, and Lou Little, long-time Lion coach.

Navymen at the Olympic Games

Navy athletes representing the U. S. fared not-good, not-bad in the 17th Olympic Games in Rome.

There were some disappointments—such as the highly regarded Naval Academy Varsity rowing team's failure to survive the eliminations in eight-oared shell competition—but there were some bright performances too.

Foremost of these were the two gold medals won by Jeff Farrell as a member of two winning U. S. relay swimming squads. Farrell actually competed as a civilian, having been discharged from the Navy just a few days before leaving for Rome.

Farrell, incidentally, had been regarded as practically a sure bet for gold medal honors in the 100-yard free-style event, only to be struck down by an appendicitis attack less than a week before the U. S. eliminations.

His gritty performance in the relay events a short while later won him wide acclaim.

Another top effort was turned in by LTJG Robert L. Beck, who sweated and strained through the five grueling events which comprise the modern pentathlon, and made a tremendous showing before falling behind in the cross-country race, and succumbing to the determined bids of two Hungarians in the battle for gold and silver medals. LTJG Beck's third-place finish earned him a bronze medal.

LT Harry Parker finished fifth in his bid for the single sculls championship, while ENS Alfonso Morales reached the quarter-finals in the sabre division in fencing.

—Jerry McConnel, JOI, USN.

FULL 'SAIL'—LTJG Bob Beck races toward the finish line in the Olympic modern pentathlon cross-country race to win United States a bronze medal.



THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

• CONCURRENT TRAVEL TO GUAM—

Here's good news for enlisted men with orders for duty to Guam in the immediate future—your wife and youngsters may now travel there with you if you so desire. Of course, entry approval must still be obtained in all cases from ComNavMarianas before concurrent travel can be authorized.

Concurrent travel to Guam has been made possible through the opening of a newly completed Capehart housing project there. Previously a three-to-six month waiting period was required.

• **ADVANCEMENT FOR SDs**—Advancement prospects are improving for men in the steward rating.

As every SD knows, that rating has been overcrowded in the petty officer grades for several years because the number of billets for SDs has been going down while the reenlistment rate has remained high. At the same time, there has been a shortage of men in the steward apprenticeships which has forced the Navy to turn down change-of-rate requests from TNs and TAs.

Now, however, transfers to the Fleet Reserve by stewards who entered the Navy during World War II are beginning to loosen things up all along the line.

Plans for fiscal 1961 and 1962 call for the advancement of about 300 TNs to SD3 in each of those years. The number will increase to 400 a year in fiscal 1963 and '64, and to 500 for fiscal years '65 and '66.

Advancements to pay grade E-7 have increased in the past year. This

trend is expected to continue, and opportunities for advancement to E-5 and E-6 are also expected to increase correspondingly in the near future.

• **GOOD CONDUCT MEDAL**—New and stiffer requirements governing eligibility for the Good Conduct Medal have been put into effect by the Bureau of Naval Personnel. In the future you'll have to serve longer and shape up better to rate it.

The big change—requiring four years of continuous active duty instead of the three years called for under present regulations—won't go into effect until 1 Nov 1963. Other changes became effective as of November first of this year.

To rate the Good Conduct Medal from now on, you will have to maintain a completely clear record—in other words, no convictions by courts-martial, no non-judicial punishments, no sick-misconduct. In addition, you will have to maintain a mark of at least 3.0 in each of the performance evaluation traits—professional performance, military behavior, leadership and supervisory ability, military appearance, and adaptability—on which you are marked.

Old rules allowed one non-judicial punishment, and called for marks of 3.0 or more only in the military behavior and military appearance categories.

Another change will allow ex-midshipmen to credit time spent at the Academy toward the Good Conduct Medal if they later revert to enlisted status in the Navy.

• **NATIONAL DEFENSE AND KOREAN SERVICE MEDALS**—If you have earned the National Defense Service Medal and or the Korean Service Medal, and have never received them, now's the time to make your application.

BuPers says general distribution of those awards, held up previously by lack of funds, is now possible. It wants applications, both from active and inactive duty personnel and from discharged ex-Navymen.

If you're one of the former, on active or inactive duty, you should address your application to The Chief of Naval Personnel, Department of the Navy, Washington 25, D. C. (Discharged personnel should write to The Chief of Navy Branch, Military Personnel Records Center, 9700 Page Boulevard, St. Louis, 32, Mo.)

A National Defense Service Medal is awarded to any person in the naval service who served on active duty at any time between 27 Jun 1950 and 27 Jul 1954. Only exceptions are those members of the Naval Reserve who served on active duty for training only, or short tours for the purpose of serving on boards, courts, etc.

The Korean Service Medal honors service in the prescribed Korean area between 27 Jun 1950 and 27 Jul 1954, under specified terms.

For example: If you served on sea duty for one or more days in a designated area while attached to or serving on board a Navy ship, or any other vessel to which you were regularly assigned, you are eligible.

• **ACTIVE DUTY RESERVISTS**—If you're a Naval reservist on active duty, or were formerly one, check up on Change Six to BuPers Inst. 1130.4F and the Revised Recruiting Service Instruction 211.2. Both of these recently issued publications contain new information of vital interest to you, whether you wish to



NO MATTER HOW YOU SLICE IT — This magazine is intended for 10 readers — pass this copy on.

remain on active duty with the Reserve, or go Regular Navy.

As a Reservist, other than a TAR, Change Six opens up a big new option for you. You now may, if qualified, extend your enlistment or reenlist in the Reserve in the rate you currently hold, and be retained on active duty for 24, 36 or 48 months.

Under previous regulations, if a Reservist became eligible to switch to the Regular Navy, and elected not to do so, he was released from active duty.

The other big news contained in Change Six concerns those Reservists whose current active duty tour began on or after 1 Sep 1958. If you fit into that category you now may, at any time after completion of 12 months' active duty, enlist in the Regular Navy in the rate held. Previously you had to do so between your 12th and 18th months of active duty or become disqualified.

The following is the latest listing of "open" rates in which eligible active duty Reservists may enlist in the Regular Navy:

Rating	Pay Grades	Rating	Pay Grades
QM	1,2,3	BR	C,1
SM	C,1,2,3	EM	1,2,3
RD	C,1,2,3	IC	C,1,2,3
SO	C,1,2,3	SF	2,3
TM	C,1,2,3	DC	2,3
GM	2,3	PM	C,1,2,3
GS	2,3	ML	3
FT	2,3	SV	C,1,2,3
NW	C,1,2,3	CE	1,2,3
MN	2,3	EO	3
ET	C,1,2,3	EM	3
IM	2,3	BU	2,3
OM	C,1,2,3	SW	2,3
RM	1,2,3	UT	2,3
CT	C,1,2,3	AD	3
YN	3	AT	C,1,2,3
PN	3	AO	2,3
MA	2,3	AQ	1,2,3
SK	1,2,3	AC	2,3
DK	2,3	AB	3
PC	C,1,2,3	AE	1,2,3
CS	2,3	AM	1,2,3
JO	C,1,2,3	PR	2,3
DM	1,2,3	AG	1,2,3
MU	C,1,2,3	TD	3
MM	C,1,2,3	AK	3
EN	1,2,3	PH	2,3
MR	1,2,3	PT	C,1,2,3
BT	1,2,3		

Also: SN, SA, SR, AN, AA, AR, DN, DA, DR, TN, TA, TR.

RSI 211.2 applies to enlistment of individuals whose previous Naval service was active duty as a member of the Naval Reserve or in the Navy as an inductee (USN-I or USN-S).

Heretofore such enlistments had to be made on board within 24 hours of discharge from the Reserve. Now,

under new, relaxed regulations announced in the subject instruction, you may enlist in the Regular Navy any time up to and including 90 days after your discharge or release from active duty while a member of the Reserve, and still retain the rate you previously held.

For Navymen, this privilege is extended to all ratings. In the case of women, only these rates and ratings are eligible: SN, SA, SR, AA, AN, IIA, HN, DA, DN, ET, IM, OM, RM, CT, YN, PN, MA, SK, DK, CS, SH, JO, LI, DM, PH, AT, AC, AG, TD, AK, HM and DT.

However, if you were discharged or separated from the Reserve in the teleman or aviation guided missileman ratings, or the steward rating in the E-4 or E-5 pay grades, you are governed by special regulations, and should investigate RSI 211.2 more thoroughly.

Actually, under the provisions of RSI 211.2, it is possible for former Reservists, depending on pay grade, to enlist in the Regular Navy up to five or more years after discharge or release from active duty from the Reserve. The length of time, greater than 90 days, which has elapsed since last discharge or release governs the rate for which they would be eligible upon such an enlistment.

• **AE AND TD**—Aviation Electrician's Mate (AE) and Trademan (TD) have made the change from General Service Ratings to the more streamlined General Ratings. In the process, the Emergency Service Ratings of AEM (Electrician), AEI (Instrument Repairman), TDR (Repairman) and TDI (Instructor) have been disestablished.

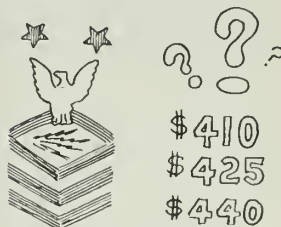
AEs and TDs on active duty as of 1 Oct 1960 were switched to the appropriate General Ratings as of that date. Those who were transferred from active to inactive duty between the time the rating structure change was approved and 1 October were switched over on the day preceding transfer to inactive duty. Changes involving other inactive duty personnel are being made the subject of separate correspondence with the commands handling the records of those individuals.

Men whose advancement has been authorized as a result of the August 1960 Fleet-wide examinations are being advanced in the appropriate General Rating, and from now on, all Navy exams for AEs and TDs will conform to the new structure.

QUIZ AWEIGH

The popular subject of pay is dealt with in this month's quiz. All questions are of the multiple choice type.

1. Top monthly basic pay for those in the enlisted pay grades is (a) \$410, (b) \$425, (c) \$440.



2. Public Law 85-422 (which in 1958 set up the latest pay raise) established the two new grades of O-10 (for admiral—of four star rank) and O-9 (for vice admiral—of three star rank). Prior to that time, four-star and three-star admirals drew the same monthly basic pay as a rear admiral (two stars). The present top monthly basic pay of our four-star admirals is (a) \$1500, (b) \$1575, (c) \$1700.

3. The same Public Law also introduced the Proficiency Pay programs. Under the law certain maximum payments were authorized. For P1 and P2 these were: (a) \$30 and \$60, (b) \$35 and \$50, (c) \$50 and \$100.

4. If you deposited \$110 in the Navy Savings Deposit Program, one year later it would be worth: (a) \$112.20, (b) \$114.40, (c) \$115.00.

5. Twice a year it is customary for the "books to be cleared." In other words, every six months there comes a time when (according to the Navy Comptroller Manual) "If practicable, all Navy personnel will be paid in full..." The dates for this event are: (a) 1 January and 1 July, (b) 15 April and 15 October, (c) 30 June and 31 December.



6. After 36 months of active duty from the date of last entitlement to an Initial Clothing Monetary Allowance, an EM's monthly maintenance clothing monetary allowance increases from \$4.20 to: (a) \$4.85, (b) \$5.20, (c) \$6.00.

Turn to page 54 for the correct answers.

THE BULLETIN BOARD

Puerto Rico Offers a Lot as a Duty Spot for Navy Families

NO MATTER WHERE you're stationed, you'll find good and not-so-good features. No place is a perfect paradise, nor are the rough duty stations as bad as they are frequently pictured. You'll find in the reports of living conditions published from time to time in *ALL HANDS* that the Navy—particularly in overseas duty stations—has done as much as possible to make your duty pleasant and desirable. Here's the story on duty in a tropical isle, one that is also a tourist attraction—Puerto Rico. Roosevelt Roads, Ramey and San Juan are the three locations which Navy families will call home.

Climate—Puerto Rico enjoys a fine tropical marine climate. Temperatures range from 75 to 85 degrees during the winter months and from 80 to 90 in summer. The island is fanned year around during the day by easterly trade winds which provide relief from the high humidity. Rainfall is abundant and generally of the showery type. There is an average of only five days a year without sunshine, although there is also an average of 210 days a year with measurable precipitation. Day-time showers are practically always followed by sunshine.

Although the Spanish customs have been modified, the island is still culturally more Spanish than North American. Predominantly Spanish are the food, housing, music, literature, family organization, social relationships, celebrations and child training. You will notice that the chaperon is still in evidence. Also, the mid-day siesta hour is still observed. United States clothing styles have been generally accepted. Wearing of shorts and slacks is still frowned upon by the Puerto Rican women; however, these have become popular lately among the younger generation.

Because of the influence of its early Spanish conquerors, Puerto Rico is a Spanish-speaking island. However, English is now taught in all schools. The majority of the educated persons speak, read and write both English and Spanish. You

All-Navy Cartoon Contest
C. Wise, HM1, USN



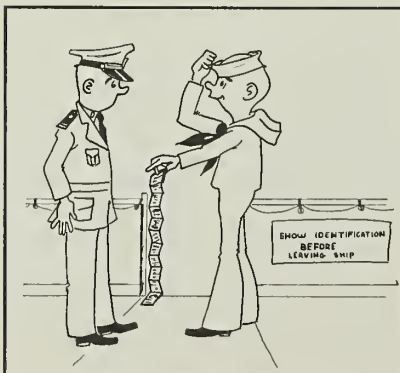
"You should travel more to broaden your knowledge..."

would do well either to learn some Spanish before coming to Puerto Rico or to take up the study of this language upon arrival, both as a good will gesture and as a means of further enjoying your stay on the island.

Housing—All naval personnel must obtain previous approval from the Commandant, Tenth Naval District to bring their dependents into this area. This entry approval is based on proper medical requirements for immunization and the availability of housing.

Roosevelt Roads: Station housing,

All-Navy Cartoon Contest
J. R. Leszewski, SN, USN



both rental and public quarters type, is critical and a waiting list is maintained. At present, a block of housing in San Patricio at San Juan (40 miles away) is used to supplement station housing. Both officer and enlisted housing will continue to be critical and concurrent travel will not normally be granted. A delay of three to four months for quarters may be necessary. Local off-station housing is poor quality, inadequate and generally of high cost.

San Juan: You may be assigned housing in either on-station public quarters or the San Patricio Housing Development which is located five miles south of the station. Quarters on-station are limited to officers and CPOs who are required aboard, but the housing units at San Patricio are considered quite adequate. Transportation to and from San Patricio is provided by Navy bus. For Fleet units whose home port is San Juan, quarters are provided in the San Patricio Housing Development. All government quarters are completely furnished with furniture, including range, refrigerator, water heater and other furnishings. Private housing is considered extremely expensive and is not recommended. Currently there is a slight waiting period for on-station housing.

Ramey: There is a sufficient number of officer and enlisted quarters with no waiting list in either group. Forfeiture of quarters allowance is required to occupy these government quarters. Off-base housing is scarce and sub-standard.

Household Effects—San Juan quarters are all furnished with stoves, refrigerators, beds and mattresses, and other furniture sufficient to satisfy basic needs. You should take along as "hold baggage" a sufficient supply of pots, pans, dishes, silverware, linen and clothing to set up house-keeping. Household kits containing the basic needs are available but, due to limited number, arrangements should be made by you or someone in your behalf before your arrival.

Other furnishings such as curtains or drapes, clothes washers, fans, end

tables, occasional tables, floor and table lamps, may be brought with a household effects shipment or may be purchased at the Navy Exchange or at local stores. There are many establishments selling good furniture in the larger towns of Puerto Rico, but except for mahogany articles, prices are higher than at home. If you bring your own furniture, it should be suitable for use in the tropics and not susceptible to termites and corrosion.

Ramey government quarters are completely furnished with automatic washers, living room set, dining room set, stove, refrigerator and bedroom sets. Bring only the very minimum items of household effects since the Air Force will not clear these quarters to make room for your personal belongings. Storage facilities are not available for your personal belongings. There is a limited supply of necessary kitchen utensils for issue to new arrivals pending receipt of their household effects.

Roosevelt government housing is fully furnished with furniture of rattan and mahogany construction. An electric stove, electric water heater and a combination refrigerator-freezer are included. A deep freeze or additional refrigerator is often useful. Washing machines and electric driers are not furnished. Although a washing machine is a necessity, a drier is not a "must" in this climate. A radio is desirable, preferably with a short wave receiver; three TV stations can be received (very few English language programs).

A sewing machine is often useful. Fine fabrics are abundant and reasonable, for example, Indianhead, Madras, English and Irish linens. You are expected to furnish your own linen, cooking utensils, silverware and china. Crates, boxes, trunks and other packing containers should be limited to disposable types as much as possible since storage space is limited to household furniture.

Appliances — All appliances shipped should be electric as there are no facilities for use of gas appliances. Electrical current throughout the island is the standard 60 cycle AC and will accommodate your electrical appliances without difficulty. Major appliances such as washers

and driers can be purchased at the Navy or Post Exchanges.

Domestic Help—Servants are readily available in Puerto Rico. You will pay a part-time maid approximately \$2.00 a day. A cook-laundress-maid about \$2.25 a day.

HOW DID IT START

Naval Militia

Back in colonial days every town and village had its militia—male residents who answered the local call-to-arms by rushing to the mustering place, weapon in hand. Through the years militia groups came to be state organizations.

On 17 May 1888 Massachusetts organized a naval battalion as part of the state's militia. Two years later the outfit became a "Naval Militia" in its own right. New York, Pennsylvania and Rhode Island followed; in 1889, each with its "First Battalion, Naval Militia."

By 1894 the movement had reached the point where SecNav was given authority to loan each state having a naval militia one of the Navy's older ships, as well as equipment. The loan was to "promote drills and instructions."

Usually the driving force behind the establishment of each naval militia outfit was a group of local amateur sailors, yachtsmen and naval enthusiasts. Other seacoast states and Great Lakes states followed the lead of Massachusetts and New York.

By 1897, 16 states had a naval militia in one form or another. For example:

Maryland—"First Naval Battalion, Maryland National Guard."

Georgia—"Georgia Naval Militia."

New Jersey—"Naval Reserve of New Jersey."

California—"Naval Battalion of the National Guard of California."

Michigan—"Michigan State Naval Brigade."

Militia groups came to be organized, in general, on a city-division basis. At Rochester, for example, would be the 3rd Div. of the N.Y. state militia; while in Calif., the 3rd Div. would be at San Diego, the 4th Div. at Santa Cruz and the 5th Div. at Eureka.

The uniform varied among the various states though all resembled, to a degree, the Navy's regulation uniform of that era. For instance, the officers of Connecticut's naval militia did not wear gold lace on their sleeves. Instead, they wore black braid on their trousers. The men's peacoat pockets were trimmed with black braid.

The sea-going militiamen underwent periodic training, usually a couple of hours each week. During the summer months they made a short cruise.

Hotels—In San Juan, several first-class hotels are available. Daily rates start at \$10.00. These hotels generally cater to tourists and during the winter months you may find that accommodations are either not available or are extremely expensive.

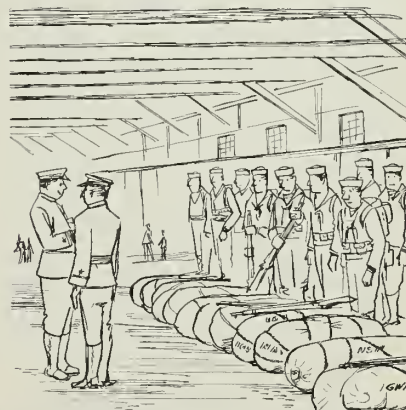
At the outbreak of the Spanish-American War, in 1898, they formed an important body of trained personnel. Governors of the various states granted the men and officers leaves of absence so that they could switch over to the Regular Navy.

During that war the ex-militiamen proved their worth; and following the war the militia outfits resumed their normal activities. In 1914 Congress passed legislation that provided for the calling of the Naval Militia into Federal service in the event of war. The militia units were required to be organized in accordance with, and the members physically and professionally qualified in accordance with, regulations laid down by SecNav.

Two years later legislation provided for the enrollment of the naval militiamen as "National Naval Volunteers." The reasoning behind this was to give the officers and men status not only in the Naval Militia but also as members of a federal organization that could be ordered to active duty in the event of war.

In the early part of 1917 all qualified naval militiamen were enrolled as "volunteers" and called into active service. The following year, on July 1, they had a name change and became members of the Naval Reserve Force.

This marked the end of the Naval Militia as a U.S. Government sponsored organization, but some states maintained the Naval Militia for several years after this, and the U.S. Navy "loaned" them ships up through 1927.



Clothing—Summertime clothes are in order the whole year—cotton, rayon, nylon washables. During the winter months, particularly evenings, somewhat heavier clothes such as light sweaters may be desirable. It is suggested that no heavy fall or winter clothing be brought to Puerto Rico, especially clothing requiring special storage such as fur capes or coats. A light raincoat, preferably plastic, will be useful as will the summer uniform raincoat. Informal dress is in order at most times.

There are few occasions (but there are some) where formal attire (white uniform or summer tuxedo) is required. For many social events, slacks and sport shirts are entirely acceptable. Civilian clothes are permitted when off duty. On duty, khaki service (cotton) is the customary uniform for officers and CPOs and undress whites for other enlisted men.

During the summer months, a shift to tropical uniforms with shorts and short-sleeved shirts is optional for all hands.

Blues are never required, but should be brought along in anticipation of stateside temporary additional duty or emergency leave. The Navy Exchange has basic items of clothing, underwear and outerwear for sale, but selection is limited. Clothes of excellent quality are obtainable in a number of good local stores.

Considerable difficulty will be encountered in obtaining certain unusual articles of footwear. Odd sizes in clothing or shoes (for example, triple A widths) will usually not be available. This difficulty is more often encountered with women's and children's apparel.

Ladies can find some excellent dressmakers, although it may take some looking. Cloth by the yard is unusually reasonable although great care must be taken to insure that the material is not "second." Prices on clothes are not appreciably different from stateside.

Shopping by mail order will be found to be quite satisfactory. Laundry and dry cleaning service is provided at moderate cost. There are also a number of commercial establishments offering such service.

Food—Commissaries carry an adequate line of almost all foods. Shortages occur in certain items from time to time when there is a long period

between supply ship arrivals, but stocks are generally adequate. Frozen fresh milk can be had, as well as powdered and canned milk. Pasteurized fresh milk is delivered by local dairies at a moderate price. Local fruits and vegetables are plentiful in season and are reasonable in price. There are many well-stocked supermarkets in the San Juan area.

Medical Care—Station dispensaries offer limited outpatient care including prenatal care for naval dependents. Those requiring inpatient treatment are hospitalized at the U.S. Army Rodriguez Hospital in San Juan. This institution has all normal hospital facilities for medical and surgical service. Dental care is provided dependents on a facilities

availability basis; therefore, all necessary dental work should be accomplished before your departure from the States.

The base hospital at Ramey offers complete medical care for all Naval Facility personnel and their dependents. This institution has all normal hospital facilities for medical and surgical service. Dental care is also provided.

Education—Roosevelt Roads has a station school which is a branch of the Antilles Consolidated School, grades kindergarten through twelve. Education standards approximate those of schools in Washington, D.C. All grades are on a full day, 0830 until about 1430. Buses carry school children from bus stops near their homes to and from the school. Ample playground is available. A Catholic school is available in Fajardo, approximately 10 miles from the station at reasonable prices.

San Juan possesses a school offering standard curriculum for kindergarten through grade 12. There is also a nursery school and kindergarten there which may be attended upon payment of a varying tuition charge, currently \$10 a month per pupil. High school students will find available several good private schools in San Juan. The University of Puerto Rico offers good college courses primarily conducted in Spanish with textbooks in English as does the College of Mechanical Arts.

Ramey possesses an excellent school system for grades one through 12. The system, consisting of two fine school buildings, compares favorably with public schools in the States. Both schools possess rich curriculums and are staffed by extremely competent teachers. The extra-curricular program takes full advantage of the fine recreation areas provided by each school.

It is important to obtain transcripts of credits for the schooling already completed, as well as available information regarding the children's particular aptitudes and educational levels. If transcripts are not available, you should bring report cards. Florida State University extension courses are available for adults to further their education.

Religion—The island is predominantly Roman Catholic. Protestant and Catholic services are conducted weekly at station chapels. English

NOW HERE'S THIS

Couple of Nice Gestures

USS *Ticonderoga* (CVA 14) has given a new twist to the technique of replenishment at sea. She's eliminated the middle man.

The carrier's venture into direct producer-to-consumer relations came about one day when she spotted a fishing boat with what appeared to be a dangerous list. A helicopter was sent whirling to the rescue, only to find that the fishermen weren't at all worried about the situation. In fact, since the list was caused by a heavy haul of tuna, they were very happy about it.

Although the "rescue" had turned out to be a mere false alarm the fishermen appreciated the Navy's concern for them. To show that appreciation one of them held up a tuna and offered it to a member of the helicopter's crew.

A few hours later, that fish, plus others obtained from the boat, were served on *Ticonderoga's* dining tables.



The Meaning of the Navy and Marine Corps Medal

Among the criteria set forth for awarding of the Navy and Marine Corps Medal to a U.S. Navyman or Marine are these: he "must have performed a voluntary act of heroism in the face of great danger to himself," and "extreme and heroic daring at the risk of his own life."

Under those criteria, the late Everett Bradbury, Jr., AA, USNR, certainly qualifies, as much as any man ever has, for the award. But there's more to the story than those few brief words can reveal.

What makes a man become a hero, in the face of almost certain death for himself? Frankly, we don't know the answer to that one, nor, do we think, does anyone else. We only know that it often happens, when time and circumstance demand, that one man in a crowd finds it within himself to rise to the occasion.

For 19-year-old Navy Airman Bradbury, such a moment of truth faced him squarely one evening some months ago near his base, the Naval Auxiliary Landing Field, Charlestown, R.I. A Navy S2F crashed into a patch of woods next to the field. Bradbury, a member of the base rescue crew, and others of the team hurried to the scene.

The plane was down in a small clearing in the woods, and crash trucks couldn't penetrate all the way to the site. The firefighters, therefore, had to grab whatever portable equipment they could—CO2 and dry chemical dispensers, axes and protective clothing.

They found the plane a twisted, overturned jumble of wreckage, already afire. The pilot was apparently trapped in the cockpit, and appeared to be in a state of shock, unable to help himself.

Several of the crash crew began spraying the cockpit in an effort to keep the fire from reaching the trapped flier, while others tried desperately to free him. Then two explosions, and the subsequent flames and intolerable heat, drove them back.

They were wearing standard fire-fighting equipment—heat-protective helmet and mask, canvas coat, rubber boots and asbestos gloves. While this gear provides protection under normal conditions, it was of little help against the intense heat and flames they were battling. It was after those two explosions wreathed the wrecked plane in flame that most of the would-be rescuers became convinced that nothing further could be done.

The doomed pilot's faint cries for help were still ringing in Bradbury's ears, however, and he made



his decision. Shouting "I've got to get him," he plunged back through the flames, gripped the helpless man, and managed to wrench him free. At almost the same instant, the plane's de-icer fluid tank exploded,

saturating the cockpit with liquid fire.

Kneeling over the pilot, Bradbury took the brunt of the sheet of flame upon himself. Then, completely ablaze, he staggered backwards clear of the fire before collapsing. The pilot, aroused from his shocked state, also managed to crawl clear of the flames before he, too, collapsed.

Bradbury's fellow fire-fighters rushed immediately to his aid, snuffing out the flames which enveloped him as quickly as they could with their canvas coats and chemical spray. Then they applied artificial respiration to start his breathing again, and bore him gently to a waiting ambulance. It was all in vain, however—terribly burned, he died in the hospital 12 days later.

To attendants administering to him during the ambulance ride to the hospital was revealed something of the measure of the man he was. Ignoring his intense pain, he asked them over and over whether the pilot was all right, and whether he had been able to get him out.

LT Ronald C. Westfall, USN, is alive, through Bradbury's heroic act of self sacrifice. Late this past summer Mr. and Mrs. Everett Bradbury, Sr., of Fall River, Mass., visited Washington, D.C., to receive from Secretary of the Navy William B. Franke their son's posthumous award of the Navy and Marine Corps Medal.

language services in some denominations are held at churches in San Juan.

Recreation — Many opportunities exist for recreation and amusement. Such sports as baseball, tennis, swimming, basketball, golf, fishing, bowling and others are year-round activities. There are movies on the station every night. Dances, formal and informal, are arranged at the EM, CPO and officers clubs at frequent intervals. Camera enthusiasts will find subjects for slides and movies.

There are outdoor swimming pools

on the San Juan Naval Station at both the EM and Officer's Club. There is salt-water bathing at the Army and Navy Beach in San Juan and at a number of other spots along the coast as well. Fishing, both deep sea and fresh water, is excellent. Numerous mountain lakes and streams have an abundance of bass and catfish. In the San Juan area are two nine-hole golf courses; besides, at Ramey Field and at Roosevelt Roads (80 and 50 miles distant, respectively) are two more courses. Golf clubs can be checked out for 24 hours at a time through special serv-

ices and at all service golf courses.

Trips to Panama by MSTs ships on a space available basis and to St. Thomas and other islands at very reasonable commercial air rates are available as time and opportunities permit.

Automobiles — A private car will come in very handy in Puerto Rico, especially if you are going to Roosevelt Roads where it is practically a necessity.

No taxes are imposed on cars shipped at Government expense. Because of transportation charges and the insular tax, cars purchased on the

island are expensive. If you purchase a used car on the island, you must pay the insular tax.

If you want to operate your car on the station, it is necessary that you carry public liability insurance of \$5,000 and \$10,000 coverage per accident. This insurance should be obtained before your departure because insurance rates in Puerto Rico are much higher than in the States.

Normal repair and maintenance service on all standard make cars is available and satisfactory at the various dealer agencies. The average cost of gasoline is 26 cents a gallon. Several major U.S. companies operate throughout the island.

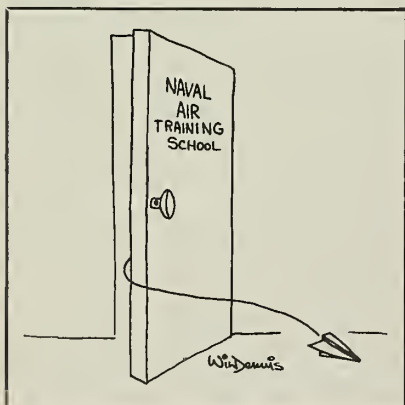
Bring a small car if available. It is advisable to have new or nearly new tires on the car. Have repairs completed in the U.S. before shipping the car, such as front end alignment, brake lining, head light adjusting, radiator flushing, etc. Major repairs are very expensive and the quality of workmanship is questionable on the more complicated mechanisms.

If you hold a valid Stateside driver's license and registration plates, a non-resident driver's license and decal will be issued free and will be good for your entire stay in Puerto Rico. Stateside plates are used.

Passports are not required.

Pets—General information on the shipment of pets will be forwarded upon receipt of application for travel. No taxes are imposed on pets at time of entry nor are licenses required. Veterinary services and kennel accommodations are available to a limited degree.

All-Navy Cartoon Contest
Bill Dennis, SN, USN



Harvard's Underwater Course for Submariners

Crew members of the *Polaris*-missile-firing submarine USS *George Washington* SSB(N) 598, can relax during long hours under the sea this winter attending a Harvard University lecture course.

It's a bonafide Harvard college course entitled *The Anatomy of Revolution*, which has been recorded on film. The course, consisting of 15 films, plus study material, considers several modern revolutions and discusses their causes, development and results.

When the ship returns to port, crew members will do eight hours of classroom work on campus and then take a final examination. Those who pass will receive two semester hours of college credit.

This is the first Harvard extension course offered outside the Boston area, but the film has already been shown over a Boston television station. The lecturer is Crane Brinton, McLean Professor of Ancient and Modern History at Harvard.

Future Fleet ballistic missile submarine crews will also be given the opportunity to obtain college credit, but will probably have a much wider choice of subjects.

Purchases—Mahogany bowls, hand-made and embroidered blouses, lingerie and men's linen suits are excellent buys. Woven baskets are inexpensive and beautiful. You may also desire to purchase bamboo or native furniture.

Boy scout, cub, girl scout and Brownie uniforms should be brought from the States. There is one store in San Juan which sells these items but you cannot always be sure of buying any particular item.

Immunizations—Immunization may be performed by a medical officer of one of the military services or the Public Health Service or other reputable physician in private practice. The immunization certificate must be kept in your possession at all times.

Inoculations required for Puerto Rico are:

Smallpox: Vaccination, or revaccination, within three years of date of departure from U.S. regardless of age, with one of the following re-

sults: (1) Typical primary, (2) immediate reaction, or (3) accelerated reaction. Revaccination must be repeated until one of the above reactions is obtained.

Typhoid-Paratyphoid: An initial series of three injections, or booster injection, within three years of date of departure from U.S. for all over six months of age.

Tetanus-Diphtheria: An initial series of three injections, or booster injection, within four years of date of departure from U.S. for all over six months of age. Or combined DTP (Diphtheria, Tetanus, Pertussis): Age group; three months to 14 years. An initial series of three injections, or booster injection, within two years of departure from U.S.

Poliomyelitis: Immunization must be administered to military personnel, their dependents, and others under military sponsorship, under age 40, traveling to overseas areas who have not had basic series.

Nuclear-powered Sub No. 27 On Order

The Navy has ordered its 27th nuclear-powered attack submarine. The *Thresher*-class underseas ship will have an over-all length of 274 feet and a displacement of 3250 tons.

This as yet un-named submarine is designed primarily for use against other submarines, but can be used against surface ships with equal effectiveness.

Four other submarines are being constructed by the same ship builder. They are *Sculpin*, SS(N) 590, *Snook*, SS(N) 592, *Dace* SS(N) 607, and *Barb*, SS(N) 596.

All-Navy Cartoon Contest
T. H. Tennant, YNC, USN



Where to Find Answers to Questions about Your Navy Career

THE PROGRAMS AND OPPORTUNITIES available to you as a career Navyman are under continuing change, dictated by the needs of the Navy. Although the basic information concerning your service advantages, opportunities and benefits appears in manuals, regulations or notices, you may not have received the word. Normally the directives covering career opportunities are in your ship or station personnel office.

Here's a list of up-to-date directives dealing with career opportunities and programs available to officers and enlisted men, classified according to subject matter. It supersedes the list presented in the January 1959 ALL HANDS, pp. 52-54.

Remember, notices are canceled, instructions modified and manuals changed, so check with the personnel man to get the latest word.

Subject	Pertinent Directives or Authority
TRAINING	
Information and Education Program	Art. D-2103, BuPers Manual; I & E Manual (NavPers 16963-DI)
Opportunities Available Through the I & E Program; Information	Naval Training Bulletin (NavPers 14900 Fall 1957 issue, I & E Newsletter (NavPers 15801))
Tuition Aid Program	BuPers Inst. 1560.10B
Selection and Training of Candidates for Diving Duty	BuPers Inst. 1500.15D, NavPers 91769-D
Language Instruction at the U.S. Naval Intelligence School	BuPers Inst. 1520.27B
Atomic, Biological and Chemical Warfare Defense Training	BuPers Inst. 1520.16B
Naval Leadership	General Order 21 BuPers Inst. 1000.14
PAY, ALLOWANCES, INSURANCE	
Soldiers' & Sailors' Civil Relief Act of 1940; information	BuPers Inst. 1760.4
Uniformed Services Contingency Option Act	BuPers Inst. 1750.1C
Social-Security Benefits for Military Service	BuPers Inst. 1741.10A
Mortgage Insurance for Servicemen to Aid in the construction or Purchase of Homes	SecNav Inst. 1741.4B
Retirement, Voluntary & Naval Reserve with/without pay	BuPers Inst. 1820.1B, BuPers Inst. 1820.2A, SecNav Inst. 1811.3A, BuPers Inst. 1811.1B
MISCELLANEOUS	
The Navy Relief Society	Art. C-9207, BuPers Manual; BuPers Inst. 7040.3
The American Red Cross	Art. C-9207, BuPers Manual
Immigration and Nationality Act of 1952; Alien Spouses of Naval Personnel	SecNav Inst. 1750.1
Marriage of USN & USMC Personnel outside the United States and within Far East Command	Art. C-11109, BuPers Manual; SecNav Inst. 1752.2A
Visas for Alien Wives and Children of Naval Personnel	SecNav Inst. 1750.2
Reemployment rights of Naval Separates	BuPers Inst. 1760.16
Participation in Interservice and International Athletic Events and Competitions	BuPers Inst. 1710.1E BuPers Inst. 1710.2
Summary of State Bonuses	BuPers Inst. 1760.3C

Subject	Pertinent Directives or Authority
Uniformed Services Identification and Privilege Card, DD Form 1173	BuPers Inst. 1750.5A
Civilian Employment Assistance Program for Retired and Involuntarily Released Personnel	BuPers Inst. 1740.2
Your New Career	NavPers 15895A
Length of Tours of Overseas Service	BuPers Inst. 1300.26A
Education & Training Under the Veterans' Readjustment Assistance Act of 1952	BuPers Inst. 1760.17
GENERAL TRAINING	
Schools and Courses	BuPers Inst. 15200.25F, Catalog of U.S. Naval Training Activities and Courses (NavPers 91769-DI)
General Line & Naval Science School	BuPers Inst. 1520.43A
Five-Term College Training Program	BuPers Inst. 1520.48B
Officer Correspondence Courses	List of Training Manuals & Correspondence Courses (NavPers 100611)
Annual Rhodes Scholarship Competition	BuPers Inst. 1520.61
Postgraduate Education Program	BuPers Note 1520 (published annually)
SPECIALIZED TRAINING	
Flight Training (HTAI)	BuPers Inst. 1520.20A
Underwater Demolition Training	BuPers Inst. 1520.7A
Selection and Training of Candidates for Diving Duty	BuPers Inst. 1520.4D BuPers Inst. 1500.15D
Training & Administration of the Naval Reserve	BuPers Inst. 1001.10D
Nuclear Power Training Program	Enlisted Transfer Manual (NavPers 15909I)
U.S. Naval Test Pilot School	BuPers Inst. 1331.3B
ASSIGNMENT TO SPECIAL DUTY	
Assignment to Nuclear Powered Submarines	BuPers Inst. 1301.28
Assignment to Submarine Duty	BuPers Inst. 1520.6H
Assignment to Navy Security Group	BuPers Inst. 1331.2B
Assignment to Duty Involving Demolition of Explosives	BuPers Inst. 1320.5A
Assignment to Nuclear Power	SecNav Inst. 1000.3
Assignment to Nuclear-Powered Surface Ships	BuPers Inst. 1520.6B
APPOINTMENT	
Appointment to Commissioned or Warrant Grade in the Reserve of the U.S. Navy of Resigned Commissioned or Warrant Officers of the RN	BuPers Inst. 1920.8A

Subject	Pertinent Directives or Authority
Regular Navy Augmentation Program	BuPers Inst. 1120.12G
Appointment in the Medical Corps and Dental Corps, Regular Navy	BuPers Inst. 1120.3F
Appointment of Qualified Naval Reserve Officers in the Medical Service Corps	BuPers Inst. 1120.23B
PROMOTION	
Professional Fitness for Promotion of Officers and Warrant Officers on Active Duty	BuPers Inst. 1416.1E (Suspended as promotion requirement by BuPers Notice 1416 of 8 Sep 1960)
Professional Fitness for Promotion of Naval Reserve Officers not on active duty	BuPers Inst. 1416.4C
MISCELLANEOUS	
Active Duty Agreements	BuPers Inst. 1120.22B
Changes of Officer Designator Codes	BuPers Inst. 1210.6A
Extension and Release from Active Duty of Naval Reserve Officers	BuPers Inst. 1926.1C BuPers Inst. 1926.2A
Voluntary Separation Policies Affecting All Officers of the Regular Navy and the Naval Reserve except Officers of the Medical and Dental Corps	SecNav Inst. 1920.3A
Assignment & Rotation of LTJG & ENS Inter-service Transfer of Regular/Reserve Officers	BuPers Inst. 1301.33 BuPers Inst. 1120.30, BuPers Inst. 1120.31
Qualification for Command of Destroyers	Art. C-7316, BuPers Manual
Voluntary Extension of Active Duty for Reserve Officers	BuPers Inst. 1331.4B
Useful Information for Newly Commissioned Officers	NavPers 10802
Navy Facts for Officer Counsel	Officer Fact Book (NavPers 15898)
ADVANCEMENT/CHANGE IN RATE OR RATING	
Advancement in Rate/Rating	BuPers Inst. P1430.7D; Part C, Chap 7, Sec 2, BuPers Manual; Manual of Qualifications for Advancement in Rating; BuPers Inst. 1440.1C
Program for Adjustment of the Enlisted Rating Structure through Formal School Training and Inservice Training	BuPers Inst. 1440.18B
Changes in Rate and Rating	BuPers Inst. 1440.5C
Training Publications for Advancement in Rating	NavPers 10052
APPOINTMENT TO COMMISSIONED GRADE	
Naval Preparatory School	Art. C-1203, BuPers Manual
Aviation Cadet Training Program	BuPers Inst. 1120.20B
Officer Candidate School Program for Enlisted Members of the Naval Service on Active duty	BuPers Inst. 1120.29
Appointment to Commissioned Grade Integration and LDO(T) Program	BuPers Inst. 1120.18F
Nursing Education Program	BuPers Inst. 1120.27B
Appointment to Commissioned Grade SDO (Law)	BuPers Inst. 1120.21A
Navy Enlisted Scientific Education Program (NESEP)	BuPers Inst. 1510.69E

Subject	Pertinent Directives or Authority
Permanent & Temporary Appointment in the Medical Service Corps, Regular Navy	BuPers Inst. 1120.15D
Nomination of Qualified Enlisted Personnel for NROTC Program	BuPers Inst. 1110.3
Appointment to Cadetship in the U.S. Coast Guard	BuPers Inst. 1110.4
TRAINING	
Training Schools and Courses	BuPers Inst. 1500.25F, BuPers Inst. 1500.39A, Catalog of U.S. Navy Training Activities and Courses (NavPers 91769-D)
Study Materials for Applicants for Appointment to Commissioned Status under Integration and LDO(T) Programs	BuPers Inst. 1560.12A
Navy Training Courses & Enlisted Correspondence Courses	List of Training Manuals & Correspondence Courses (NavPers 10061)
Class A School Assignment for Fleet	BuPers Inst. 1510.86A
SPECIALIZED TRAINING	
U.S. Naval School of Music	BuPers Inst. 1336.2C
Assignment & Reassignment of Personnel in the Navy Air Mobile Training Program	Enlisted Transfer Manual (NavPers 15909)
Nuclear-Power Training Program	SecNav Inst. 1000.3, Enlisted Transfer Manual (NavPers 15909)
Assignment to Polaris Training	Enlisted Transfer Manual (NavPers 15909)
Polaris Field Seaman Recruits	BuPers Inst. 1306.70
REENLISTMENT/SEPARATION/RETIREMENT	
Reenlistment and Voluntary Extension of Enlistment	BuPers Inst. 1133.3C, BuPers Inst. 1133.4A
Reenlistment in the Regular Navy of Naval Reserve Personnel Serving on Active Duty	BuPers Inst. 1130.4F
Assignment to a School as an Incentive for Reenlistment	Enlisted Transfer Manual (NavPers 15909)
Review of Undesirable and Punitive Discharges	BuPers Inst. 1626.16
Early Separation to Attend College	BuPers Inst. 1910.12C
Transfer to Fleet Reserve	BuPers Inst. 1830.1A
Selective Training & Retention (STAR) Program	BuPers Inst. 1133.13
SPECIAL ASSIGNMENTS	
Transfer & Assignment for Hardship or Humanitarian Reasons	Enlisted Transfer Manual (NavPers 15909)
Assignment to Duty of Sole Remaining Sons	BuPers Inst. 1300.11
Assignment to Naval Missions, Attaches, Military Aid Groups, Joint Staff, Shape	Enlisted Transfer Manual (NavPers 15909)
Assignment to Instructor Duty	Enlisted Transfer Manual (NavPers 15909)
Assignment to Recruiting Duty	Enlisted Transfer Manual (NavPers 15909)
Assignment to Initial Submarine Training and Duty	Enlisted Transfer Manual (NavPers 15909)

Subject	Pertinent Directives or Authority	Subject	Pertinent Directives or Authority
Assignment to Duty Involving Demolition of Explosives	BuPers Inst. 1320.5A	MISCELLANEOUS	
Assignment to Reserve Training Submarines	Enlisted Transfer Manual (NavPers 15909)	Training & Administration of the Naval Air Reserve	BuPers Inst. 1001.7B
Reassignment to Area of Choice for Last Two Years' Active Duty Prior to Retirement on Completion of 30 Years' Active Duty	Enlisted Transfer Manual (NavPers 15909)	Assignment and Rotation of Enlisted Women	Enlisted Transfer Manual (NavPers 15909)
		Sea/Shore Rotation	Enlisted Transfer Manual (NavPers 15909)
		Proficiency Pay Program	BuPers Inst. 1430.12B

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instruction, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs

No. 29—Declares that all personnel shall be given opportunity to apply for absentee ballots for November elections.

No. 30—Reminds all personnel that prompt, appropriate and effective disciplinary action will be taken in all cases involving violations of customs and internal revenue laws.

No. 31—Outlines steps to be taken to reduce travel expenditures.

No. 32—Announces approval by the President of the report of a selection board which recommended Marine Corps officers on active duty for promotion to the grade of captain.

No. 33—Announces the convening of selection boards to recommend line officers on active duty (except

TARs) for temporary promotion (permanent for women) to the grade of lieutenant and lieutenant commander.

Instructions

No. 1000.7B—Provides a reference source of information pertaining to the programs and opportunities available to Navy personnel.

No. 1001.12A—Implements the policy which makes possible the early release of certain Reservists from active duty who, by reason of age, are unable to become eligible for retirement.

No. 1120.29A—Provides in one source eligibility requirements for officer candidate school programs.

No. 1211.3—Discusses identification of officer postgraduate billet requirements.

No. 1750.1C—Explains the provisions of the Uniformed Services Contingency Option Act of 1953.

No. 1730.6—Announces policy guidelines for conducting religious services by lay leaders.

Notices

No. 1221 (29 August)—Alerted all commands of the distribution of change 2 to the *Manual of Navy Enlisted Classifications* (NavPers 15105B) and provided instructions for specific coding actions.

No. 1440 (30 August)—Announced and established procedures for making changes in the Aviation Electrician's Mate (AE) and Trademan (TD) rating structure.

No. 1430 (31 August)—Furnished information regarding the future advancement opportunities in the steward rating.

No. 1416 (8 September)—Announced the suspension of requirements for mandatory completion of specified courses of instruction for the determination of professional fitness for promotion of officers on active duty.

No. 1830 (9 September)—Amplified the information contained in

Alnav 23 which is concerned with crediting a fractional year of service of six months or more in computing service for pay upon transfer to the Fleet Reserve.

No. 1210 (12 September)—Discussed the cancellation of *Officer Qualifications Code Manual* (NavPers 15006) and *Tables of Navy Officer Code Relationships* (NavPers 18347).

No. 4650 (13 September)—Announced a policy change in the overseas transportation of naval personnel and their dependents.

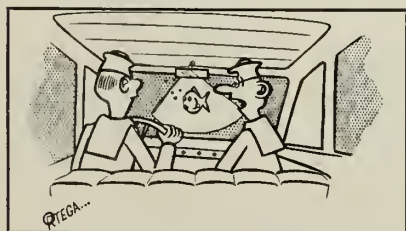
No. 1306 (16 September)—Announced the sea-tour commencement cutoff dates to establish the eligibility of enlisted personnel for Seavey Segment One which becomes effective 1 Feb 1961.

No. 5101 (20 September)—Announced the distribution of motor vehicle accident statistics for 1959.

No. 1440 (22 September)—Announced changes in the Aviation Machinist's Mate (AD), Aviation Structural Mechanic (AM) and Aviation Boatswain's Mate (AB).

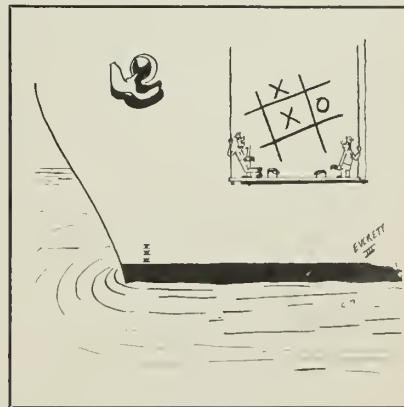
No. 1430 (28 September)—Announced the selection of personnel for change in rating to Postal Clerk (PC) and provided procedures for the change in rating.

All-Navy Cartoon Contest C. J. Ortega, DMISN, USN



"How long did you say you were on submarine duty?"

All-Navy Cartoon Contest G. W. Everett, IC3, USN



"Your move, Jack!"

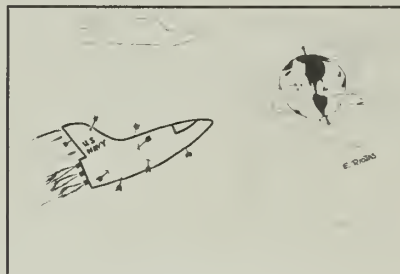
Changes in Overseas Tours In Five Countries Listed For Navymen and Dependents

Since ALL HANDS last published a complete round-up of standard uniform tours (with and without dependents) at overseas duty stations in its February 1960 issue, some minor changes have been made. In a few areas, dependents are no longer authorized entry; in some the tour without dependents has been lengthened, while in others tours have been shortened.

Here are the latest changes:

Pakistan—For the majority of locations in this country, tours remain the same—24 months with depend-

All-Navy Cartoon Contest
E. Riojas, HM1, USN



"Think they'll believe us?"

ents, 18 months without them. However, the Lahore area has joined the Peshawar area as not open to dependents, and tours at the two areas

have been upped from 12 to 15 months.

Turkey—Remains the same except that the Trabzon, Samsun and Diyarbakir areas have been added to the list of sites in that country where dependents are not authorized. Tours at all three areas will be 15 months.

Spain — Remains the same — 36 months with dependents, 24 months without them, except for the El Ferrol and Cartagena areas, where the tours will be 24 and 18 months, respectively.

United Kingdom — Remains the same—36 months with dependents, 24 months without them, with the exception that Londonderry tour will now be 24 and 18 months.

All-Time Low in Naval Aviation Accidents

Naval aviators are being so careful these days that someone has suggested they should be voted a bonus — or at least three cheers — for the money they've saved. Last year in naval aviation there were 1.92 accidents for every 10,000 hours flown. This was an over-all accident reduction of 25 per cent over fiscal year 1959.

This all-time low was accomplished even though the hours of carrier flight operations, where the

accident potential is highest, have gone up. There were also fewer landing accidents than in-flight accidents during fiscal year 1960, although modern aircraft are more difficult to land.

Aviators who flew from carriers during the year deserve much of the credit for the low accident rate. The carrier aircraft accident rate per 10,000 flight hours went down 43 per cent from last year's rate.

Other categories that were chalked up in the "fewer" column for 1960 included airplanes destroyed, accidents which involved fatalities, and dollar losses. These phases did not follow the straight 25 per cent reduction because accidents in high performance aircraft are sometimes more severe. Further, in the matter of the dollar losses the cost of aircraft has increased.

These units have received Safety Awards for fiscal year 1960:

Unit	Home Port or Station	Marine Helicopter Transport	
NAVAL AIR FORCE, PACIFIC		Squadron (light) 361	Santa Ana, Calif.
Fighter Squadron 24	Alameda, Calif.	Headquarters and Maintenance	
Fighter Squadron 121	Miramar, Calif.	Squadron 13	Kaneohe, Hawaii
Attack Squadron 52	Miramar, Calif.	FLEET MARINE FORCE, ATLANTIC	
Heavy Attack Squadron 8	Whidbey Island, Wash.	Marine Fighter Squadron 333	Beaufort, S.C.
Carrier Air Group 9	Alameda, Calif.	Marine Composite Reconnaissance	
Patrol Squadron 4	Naval Air Facility, Naha, Okinawa	Squadron 2	Cherry Point, S.C.
	Alameda, Calif. /	NAVAL AIR TRAINING	
Patrol Squadron 47	Whidbey Island, Wash.	Training Squadron 31	Corpus Christi, Tex.
Air Antisubmarine Squadron 37	Los Alamitos, Calif.	Training Squadron 23	Kingsville, Tex.
Helicopter Utility Squadron 1	Ream Field, Calif.	Training Squadron 7	Kingsville, Tex.
All-Weather Fighter Squadron 3	North Island, Calif.	Training Squadron 3	Milton, Fla.
USS Princeton (Special Award)	Port Hueneme, Calif.	Helicopter Training Squadron 8	
USS Thetis Bay (Special Award)	Long Beach, Calif.	(Special Award)	Pensacola, Fla.
NAVAL AIR FORCE, ATLANTIC		Naval Air Technical Training Unit	Olathe, Kans.
Fighter Squadron 14	Cecil Field, Fla.	NAVAL AIR RESERVE	
Helicopter Antisubmarine Sqdrn. 9	Quonset Point, R.I.	Fighter Squadron 727	Glenview, Ill.
Photographic Squadron 62	Jacksonville, Fla.	Attack Squadron 672	Atlanta, Ga.
Attack Squadron 81	Oceana, Va.	Patrol Squadron 881	Olathe, Kans.
Early Warning Squadron 13	Patuxent River, Md.	Antisubmarine Squadron 742	Jacksonville, Fla.
Carrier Airborne Early Warning Squadron 33		Transport Squadron 742	Jacksonville, Fla.
USS Antietam (Special Award)	Quonset Point, R.I.	Helicopter Squadron 741	Jacksonville, Fla.
AIR FORCE,	Pensacola, Fla.	MARINE AIR RESERVE	
FLEET MARINE FORCE, PACIFIC		Marine Attack Squadron 233	Norfolk, Va.
Marine Attack Squadron 121	Iwakuni, Japan	Marine Attack Squadron 213	Minneapolis, Minn.
Transport Squadron 352	El Toro, Calif.	Marine Helicopter Transport Squadron 267	New Orleans, La.

Japan — Remains the same — 36 months with dependents, 24 months without them, except in the Kakauai area, where dependents' entry is not authorized. The tour there has been raised from 12 to 15 months.

Complete information concerning overseas duty tours anywhere in the world can be found in BuPers Inst. 1300.26A (corrected through change two).

In addition to these changes in tour lengths, the ground rules governing dependent transportation have been revised slightly. Notable are changes involving space-available transportation for dependents of junior enlisted members. Also, entitlement to dependent travel of members in all grades who are assigned ships and units homeported overseas is now contingent upon there being no anticipated change in the unit's homeport within a year following overseas arrival of the dependents.

Latest Correspondence Courses For Officers, Enlisted Men

One new officer correspondence course (OCC) and two enlisted correspondence courses (ECC) are now available from the Correspondence Course Center, Scotia, N. Y. Four others have been discontinued.

The new courses are:

Course	NavPers Number
OCC Prosthodontics, PT 1	10763
ECC Radarman 1 and C (CONFI	91286
*ECC Commissaryman 1 and C	91443-2

(*May be taken for repeat Naval Reserve credit)

The enlisted correspondence courses discontinued are: *Commissaryman 1* (NavPers 91442-1A), *Commissaryman C* (NavPers 91443-1A), *Boatswain's Mate 3* (NavPers 91242-1B), and *Boatswain's Mate 2* (NavPers 91243-1A).

Enlisted correspondence courses will be administered (with some exceptions) by your local command instead of the Correspondence Course Center.

If you are an EM on active duty, your division officer will advise you whether the course for which you have applied is suitable to your rate and to the training program you are following. If it is, he will see that your application (NavPers 231) is forwarded to the Correspondence Course Center, which will supply the materials to your command.

WAY BACK WHEN

Exploits of USS Alliance

A ship of distinction in the Revolutionary War Navy was the frigate *Alliance*. One of the 42 principal vessels of the Fleet of the Continental Congress, *Alliance* was built in Massachusetts and made her maiden voyage in January 1779. She was a fast sailer and was considered by many as the finest ship of the Navy. One of her skippers was John Paul Jones, who cruised her in European waters for a brief period in 1780.

Action for *Alliance* began 4 Mar 1781, with rugged John Barry as her commander. Bound for France, *Alliance* captured the British privateer *Alert*—which ship, in turn, had previously captured a ship of the Republic of Venice. Captain Barry freed the crew of the latter, returned their ship to them, and had *Alert* brought into port.

On the way back to America, *Alliance*, on 2 April, made contact with a pair of heavily gunned privateers, *Mars* and *Minerva*. By the code of that day *Mars* was sneaky, for she "ran close on board of us and without any hail fired the whole broadside at us." *Alliance* gunners soon put the two privateers out of action, however, and added them to her collection of prizes.

The following month the 36-gun *Alliance* contacted even bigger game. *Atlanta* (16 gun) and *Trepassy* (14 gun) were a pair of British men-of-war cruising off the coast of North America. In a hard-fought two-and-one-half hour battle, *Alliance* captured them both.

For the next two years things were relatively quiet for *Alliance*—except for the matter of attempting to make a single-ship blockade of the Bermuda Islands. On 10 Mar 1783 she fell in with the British frigate *Sibyl* in the West Indies. A 45-minute gun battle followed. There were damage and deaths on both sides, but the result was inconclusive.



This was the last naval engagement of the Revolutionary War. (Cornwallis had surrendered at Yorktown some two and one-half years earlier. Fourteen days after *Alliance's* sea-fight, Congress ordered all the American armed ships to return to port.

She continued in the service of the Continental Government after all the other ships had either been sunk, wrecked, captured or sold. In September 1783 the government's Agent of Marine was directed to "discharge the officers and crew of the ship." She was later sold and was soon headed for Canton, China, as a merchantman.

Some time in the fall of 1783 the last of her officers and crew walked off the ship at Philadelphia. This was the beginning of a 14-year period in which the country was without a Navy. The next important year in the history of the U.S. Navy was 1797. For that year, on July 10 United States was launched at Philadelphia; on September 7 *Constellation* was launched at Baltimore; and on 21 October *Constitution* was launched at Boston.

Navy Mutual Aid Association Increases Beneficiary Benefits

Total death benefits payable to the beneficiaries of members of the Navy Mutual Aid Association have been increased to \$10,000.

The Board of Directors of the Association voted recently to add \$2500 to the \$7500 benefit already in effect. It was the fifth increase voted in terminal benefits since 1954.

Navy Mutual Aid Association membership is open to all regular commissioned and warrant officers on active duty, including Reserve officers on extended active duty, of

the Navy, Marine Corps and Coast Guard. Membership is permanent, and a change in status, such as resignation, retirement, or release to inactive duty does not affect it.

In addition to voting the increased terminal dividend, the Board of Directors also announced that paid-up memberships of less than \$7500, terminated by death, will be increased by one third.

Any officer desiring more detailed information on the above subject may write directly to the Navy Mutual Aid Association, Navy Department, Washington 25, D. C.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen pro-

ANSWERS TO QUIZ AWEIGH

1. (c) \$440.
2. (c) \$1700.
3. (c) \$50 and \$100.
4. (b) \$114.40.
5. (c) 30 June and 31 December.
6. (c) \$6.00.

Quiz Aweigh is on page 43.

cesses by (WS). Distribution began in September.

The Giant of Marathon (1579) (C) (WS): Melodrama; Steve Reeves, Mylene Demongeot.

Pay or Die (1580): Drama; Ernest Borgnine, Zohra Lampert.

The Wind Cannot Read (1581): Drama; Dirk Bogarde, Yoko Tani. *Bluebeard's Ten Honeymoons* (1582): Melodrama; George Sanders, Corinne Calvert.

Prisoner of the Volga (1583) (C) (WS): Melodrama; John Derek, Dawn Adams.

Conspiracy of Hearts (1584): Melodrama; Lilli Palmer, Sylvia Syms.

Operation Amsterdam (1585): Melodrama; Peter Finch, Eva Bartok.

The Day They Robbed the Bank of England (1586): Melodrama; Aldo Ray, Elizabeth Sellars.

Kidnapped (1587) (C): Melodrama; Peter Finch, James MacArthur.

The Tinger (1588): Melodrama; Vincent Price, Judith Evelyn.

Walk Like a Dragon (1589): Drama; Jack Lord, Nobu McCarthy.

The Rat Race (1590) (C): Comedy Drama; Tony Curtis, Debbie Reynolds.

The Cossacks (1591) (C) (WS): Melodrama; Edmund Purdom, John Drew Barrymore.

The Subterraneans (1592) (C) (WS): Drama; Leslie Caron, George Peppard.

The Electronic Monster (1593): Melodrama; Rod Cameron, Mary Murphy.

Six Kittens go to College (1594): Melodrama; Mamie Van Doren, Mickey Shaughnessy.

WHAT'S IN A NAME

Record-Setting Essex

A tip of the hat to USS Essex (CVS 9).

A new combat carrier record for arrested landings—98,550 of them—belongs to the veteran antisubmarine warfare support aircraft carrier today, some 16-and-a-half years after she racked up her first one.

When Essex' commanding officer, CAPT Richard L. Fowler, USN, set his Grumman S2F Tracker antisubmarine patrol plane down on the flattop's flight deck recently he shattered the previous record for combat carrier landings set more than 14 years ago by the old USS Saratoga.

It is certainly fitting that Essex be the one to establish a new standard, in the twilight of a brilliant naval career. Today's huge 70,000-ton plus supercarriers have shunted her out of her long-time attack carrier role, but, as the oldest commissioned aircraft carrier still in service, she's outlasted many younger ships and is currently doing the job in a highly important program—antisubmarine warfare.

When Essex joined the U.S. Fleet in January 1943, she was the forerunner of a brand-new class of aircraft carriers to which she lent her name—the Essex class, biggest, fastest and most capable ever built up to that time.

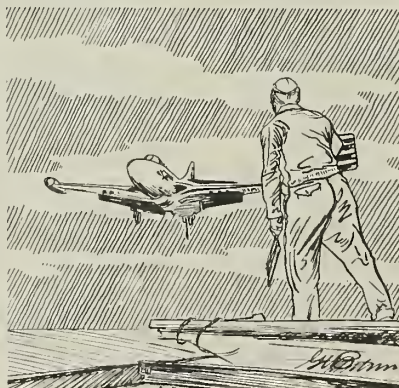
First takeoff from her flight deck was made by a young Navy pilot named Fitzhugh Lee—the same Fitzhugh Lee who, as Vice Admiral, USN, is today Deputy Commander in Chief of the Atlantic Fleet.

It didn't take Essex long to begin repaying her construction cost, and she's repaid it many times over through the years. She saw her first action during air strikes against the Japanese-held Marcus Islands a little later in 1943, and from there the trail led straight across the Pacific—Wake Island, Rabaul, Tarawa, the Marshalls, Truk, the Marianas, Palau, the Philippines, Formosa and Okinawa—to Japan itself. Thirteen battle stars, the Presidential Unit Citation and the Philippine PUC decorated her trophy case by the time V-J Day rolled around.

There followed a short rest in the Bremerton Group, Pacific Reserve Fleet, but 1950 brought Korea, and more action for Essex. Four more battle stars, the Navy Unit Commendation, the Korean and United Nations Service Medals and the Korean PUC were added to her laurels as her planes flew more than 14,000 sorties during two tours in the forward operating areas.

Still later, Essex helped provide air support for the Marine landings in Lebanon, then made an end run through the Suez and around India to bolster the Seventh Fleet when trouble flared up around the Matsu Islands and Taiwan. It was shortly after this that Essex was converted for anti-submarine work and joined the Atlantic Fleet.

(Essex' claims do not, of course, take into consideration the vast number of landings racked up by carriers such as USS Monterey (CVL 26) and Antietam (CVS 36) which have cruised the Gulf of Mexico for the use of student pilots attached to Pensacola and Corpus Christi. By the time she had finished her tour of such duty, Monterey, for example, had endured 106,400 deck-whopping arrested landings, 2300 helicopter landings. (As Antietam is still on station, her total is not known at this time.)



Uniform Shop Operates Under Navy Exchange System

A Naval Uniform Shop has been opened as part of the Navy Exchange in Washington, D.C., making it the first such operation to be established in the continental United States.

Designed to improve service in both custom-tailored and ready-made uniforms and accessories, the new shop is a prototype of some 45 stores scheduled to be established at Navy Exchanges in the United States and abroad. A similar shop has already been opened at Pearl Harbor.

Among the combined stores being planned are those at Newport, R.I.; Norfolk, Va.; Great Lakes, Ill.; Alameda, Calif.; and at overseas areas

such as Yokosuka, Japan; and Naples, Italy.

Until 1 Jan 1960, the U.S. Naval Uniform Shop was operated as a separate naval activity. At that time, however, the functions and title of the Uniform Shop were transferred to the Navy Exchange System.

For the Bluejacket And the Navy Leader

Two new service publications, recently off the press, are sure to be of interest to the career Navyman.

The 16th edition of *The Bluejackets' Manual* is the latest of a series for the text which has served since 1902 as an essential ingredient of the Navy's education and training program.

The book is divided into six basic parts. They are: Part One—General: Naval Customs and Ceremony; Leadership and Discipline; Uniforms, Insignia and Awards; Health and First Aid. Part Two—Your Career in the Navy: Advancement and Assignments, Classification, Training and Retirement. Part Three—Ships, Aircraft and Firepower. Part Four—Life at Sea. Part Five—Drills and Defense. Part Six—Seamanship and Communications.

Selected Readings in Leadership is a 126-page, paper-bound revised edition of a book which was originally prepared for use as supplementary reading material in the Naval Leadership course at the U. S. Naval Academy, and originally published in 1957.

The current revised version contains four new articles, replacing others deleted from the first edition. Three of the articles that you'll find in this edition, however, date back as far as 1918, 1921 and 1934.

Referring to those three articles, RADM John F. Davidson, USN, Superintendent of the Naval Academy, writes in the preface: "They were chosen primarily to show that the fundamental concepts and qualities expected of a leader today have changed little from the past, and are unlikely to change in the future so long as man retains his freedom and personality as an individual."

Seavey Segment I Lists Eligible Ratings and Sea Duty Cut Off Dates

Navy men in the 22 ratings which make up Seavey Segment One (1961) will start receiving orders to shore duty in February 1961.

BuPers Notice 1306 of 16 Sep 1960 established the following sea duty commencement cut-off dates. In other words, if you began your sea duty tour before the date listed for your rating, you can expect orders to shore duty any time after February 1961.

RATE	DATE	RATE	DATE
BMC	Dec 57	ETC, 1	Jun 59
BM1	Dec 55	ET2, 3, SN	Dec 58
BM2	May 54	IMC, 1	Dec 58
BM3, SN	Oct 53	IM2	Jun 58
QMC	Dec 58	IM3, SN	Dec 56
QM1	Dec 57	OMC, 1, 2, 3, SN	
QM2, 3, SN	Dec 56		Dec 57
SMC	Sep 57	RMC	Jun 58
SM1, 2, 3, SN	Jun 55	RM1	Mar 58
RDC	Dec 58	RM2	Jun 58
RD1	Dec 57	RM3, SN	Jun 59
RD2, 3, SN	Jun 57	YNC, 1, 2	Jun 59
SOC, 1, 2, 3, SN	Jun 57	YN3, SN	Mar 59
		PNC, 1, 2, 3, SN	Jun 59
TMC, 1	Dec 58	SKC, 1, 2, 3, SN	Dec 58
TM2, 3, SN	Jun 57	DKC, 1	Dec 58
GMC	Dec 57	DK2, 3, SN	Mar 59
GM1, 2	Dec 54	JOC, 1, 2, 3, SN	Jun 59
GM3, SN	Sep 54	LIC	Dec 58
NWC, 1	Jun 59	LI1	Jun 58
NW2, 3, SN	Jun 58	LI2	Mar 58
FTC	Mar 58	LI3, SN	Jun 58
FT1, 2, 3, SN	Jun 57	DMC, 1, 2, 3, SN	
GSC, 1, 2, 3, SN	Jun 59		Jun 59
MNC, 1, 2, 3, SN	Jun 59		

If you are in some of the above ratings, you can come ashore even though you went to sea after these dates. To do this, however, you must be qualified for and volunteer for instructor duty.

If you are in one of the following ratings, are eligible for instructor duty as established in article 5.22 of the Enlisted Transfer Manual, and went to sea before the cut-off dates listed below, tell your Division officer. The Chief of Naval Personnel has asked for nominations of personnel so qualified to be submitted by speedletter. Here are the ratings and cut-off dates:

SOC, 1, 2	Jun 58	GM2	Dec 55
GMC	Dec 58	FTC, 1	Jun 59
GM1	Jun 56	ET2	Jun 59

These ratings and cut-off dates are only for those men interested in instructor duty. Men in this category should not submit a Seavey Card.

After four years off watch, the "Duty Cat" of Antisubmarine Warfare Squadron 24 once again hangs in the squadron ready room — currently situated aboard the antisubmarine warfare support aircraft carrier USS Valley Forge (CVS 45). And so far as pilots and air crewmen of the recently re-commissioned squadron are concerned, with their cat again looking out for them, they're in good hands.

Duty Cat was born back in 1948, when the original VS-24, flying 18 torpedo bombers, reported aboard USS Wright (CVL 49) for shakedown training. One young pilot, a sometime artist, sketched the feline on the ready room briefing board. She was an immediate hit with squadron personnel, and from that time on, flight operations could not begin until the ritual of placing the Cat on watch had been completed. She remained on watch until the last aircraft aloft had returned.

It's small wonder that the Duty Cat gained her exalted reputation as a good luck charm. Over the eight years from the time she joined the squadron in 1948 to its decommissioning in 1956, the first VS-24 operated aboard



the aircraft carriers Wright, Siboney, Palau, Saipan, Cabot, Leyte and Antietam, without a shipboard fatality.

Duty Cat started life, as we've said, chalked up on the ready room briefing board. This presented a problem, however—when the squadron left the carrier and moved ashore, they wanted to take their Duty Cat along, but you just don't walk off with a carrier's briefing board. The design was kept going through the years, however, as a colored drawing on cardboard.

Still later the Duty Cat went airborne—when VS-24 authorized wearing the image in the form of a shoulder patch on flight jackets. Only those pilots and their crewmen who had completed day and night carrier flight qualifications can wear the patch.

So VS-24 and its Duty Cat are both back out of mothballs, and squadron pilots fly with a light heart.



Special Supplement

Three Decades Ago—

In 1925 America was midway through that fabulous era which came to be known as the "Roaring Twenties." Silent Cal Coolidge was in the White House. Babe Ruth, in the process of revolutionizing major league baseball with his big bat, suffered his monumental bellyache that year, and millions of fans suffered with him. Valentino was the toast of Hollywood, Jimmy Walker of Broadway, and Al Capone was top dog of the underworld. Prohibition was here, and the great American motoring bug had already bitten. Available roads, then as now, were clogged on a Sunday, and editors were writing scathing editorials about idiots batting around the countryside at more than 50 miles an hour.

In the mid-20's the battleships of our Pacific Fleet represented one of the greatest arrays of seapower then extant. Sixteen years later, some would keep a date with destiny at Pearl Harbor—but, at that time, no one could foresee any such unlikely catastrophe.

They were proud ships—Arizona, California, Idaho, Maryland, Mississippi, Nevada, New Mexico, Oklahoma, Pennsylvania, Tennessee and West Virginia—the big muscle boys of the Fleet, and they were manned by proud crews.

Many of the men in those crews have done right well too. CDR Raymond L. Spruance, for instance, was executive officer of Mississippi. Later, as ADM Spruance, he won fame as the victor at Midway, Chief of Staff to ADM Nimitz and Deputy CincPac, and Commander Fifth Fleet in the Gilberts and Marshalls operations.

Clarence Ekstrom was a new ensign aboard California, fresh from aviation training at Pensacola. Today, as VADM Ekstrom, he commands all Pacific Naval Air Forces. Bill Mendenhall, also an ensign serving in Maryland, was lending a hand in those days helping to officiate Fleet boxing and wrestling meets. Now, as RADM

William K. Mendenhall, he's Deputy Chief of Staff for Operations, CINCEUR.

ADM Arleigh Burke and VADM William R. Smedberg, III, CNO and Chief of Naval Personnel respectively, were among many present-day naval leaders who were just beginning their naval careers in the Battle Fleet Pacific.

There was another young man, just starting out in the Navy, in the Fleet at that time too. Happily he acquired early a habit of saving ships' papers and other bits of memorabilia of his times and places. Just recently Lyle M. Maraccini, now Senior Chief Boatswain's Mate, USN, bundled up a batch of that material and sent it to ALL HANDS.

ALL HANDS, and its readers, can be grateful for young seaman Maraccini's collecting bent. The material he's forwarded to us affords a glimpse of the Navy of an earlier day—a Navy that, in many ways, was vastly different, yet in some cases peculiarly like the Navy we know today.

Read on, if you will. Maybe, if you're one of our more senior Navymen, you'll spot a familiar name or long-forgotten incident. Or, if you're one of the younger crop, perhaps you've a father or uncle who will enjoy reminiscing about the names and places which were making news in the Mississippi "Bulletin," the Arizona "At 'em," the California "Cub," etc., circa 1925-32.

"California Cub"

Honolulu, T. H. June 1925—

Our famous black gang crawled forth from boilers and engineerooms into the light of day last Monday and welcomed into our midst LCDR R. W. Paine, the new Engineer Officer. Commander Paine comes to us from



The Battleship Navy

the Bureau of Engineering and is thus well qualified to make the wheels go round.

uss *Saratoga*, recently launched, proves fair to be one of the most interesting ships in the Navy. It is the last word in naval architecture and will be a floating aeronautical laboratory. The number of personnel far exceeds that of a battleship, for there will be 180 officers and 1600 men. The crew will represent a variety of trades never before seen on one ship. The construction of this floating monster, originally designed as a battle cruiser, was changed so that it now has a displacement of 33,000 tons, and when commissioned, will be the largest and fastest airplane carrier afloat. It is interesting to know how we were able to retain this ship, for at the Disarmament Conference she was doomed for the scrap heap. However, Japan had an armored cruiser, not yet completed, that had been partially built by pennies contributed by school children, and for this sentimental reason thought best not to scrap it. The cruiser was converted to an airplane carrier and in return the United States was allowed to convert and complete two ships, *Saratoga* and *Lexington*.

San Pedro, 30 Jan 1926—

Hearken to this. By consulting the following schedule even the most skeptical can see where *California* will be, and why, every day for the next five months.

1 Feb—Underway for Balboa, Canal Zone.

1 to 14 Feb—Cruising en route to Balboa. Tactics and Fleet problems.

14 to 21 Feb—At anchor Balboa. Liberty, overhaul and athletics.

22 to 28 Feb—Based on Balboa. Underway for Joint Army-Navy problem.

1 to 7 Mar—Based on Balboa. Underway for tactics and advanced torpedo practice.

8 to 14 Mar—At anchor Balboa. Supply, overhaul, athletics and liberty.

15 to 30 Mar—En route Balboa to San Pedro. Tactics and gunnery training.

1 Apr—Arrive San Pedro.

1 to 11 Apr—At anchor San Pedro. Overhaul, liberty and athletics.

12 to 22 Apr—Based on San Pedro. Underway for gunnery exercises.

23 to 24 Apr—At sea for tactical exercises.

BATTLESHIP men of yesterday pose for photo on turret.



25 Apr—At anchor San Pedro.
 26 Apr to 9 May—Based on San Pedro. Underway for gunnery exercises.
 10 to 16 May—At anchor San Pedro. Overhaul, liberty and athletics.
 17 to 20 May—Based on San Pedro. Underway for gunnery exercises.
 21 to 22 May—At sea for tactical exercises.
 23 May—At anchor San Pedro.
 24 to 30 May—Based on San Pedro. Prepare and fire force practice.
 31 May to 13 Jun—At anchor San Pedro. Overhaul, liberty and athletics.
 14 to 27 Jun—Cruising and tactics.

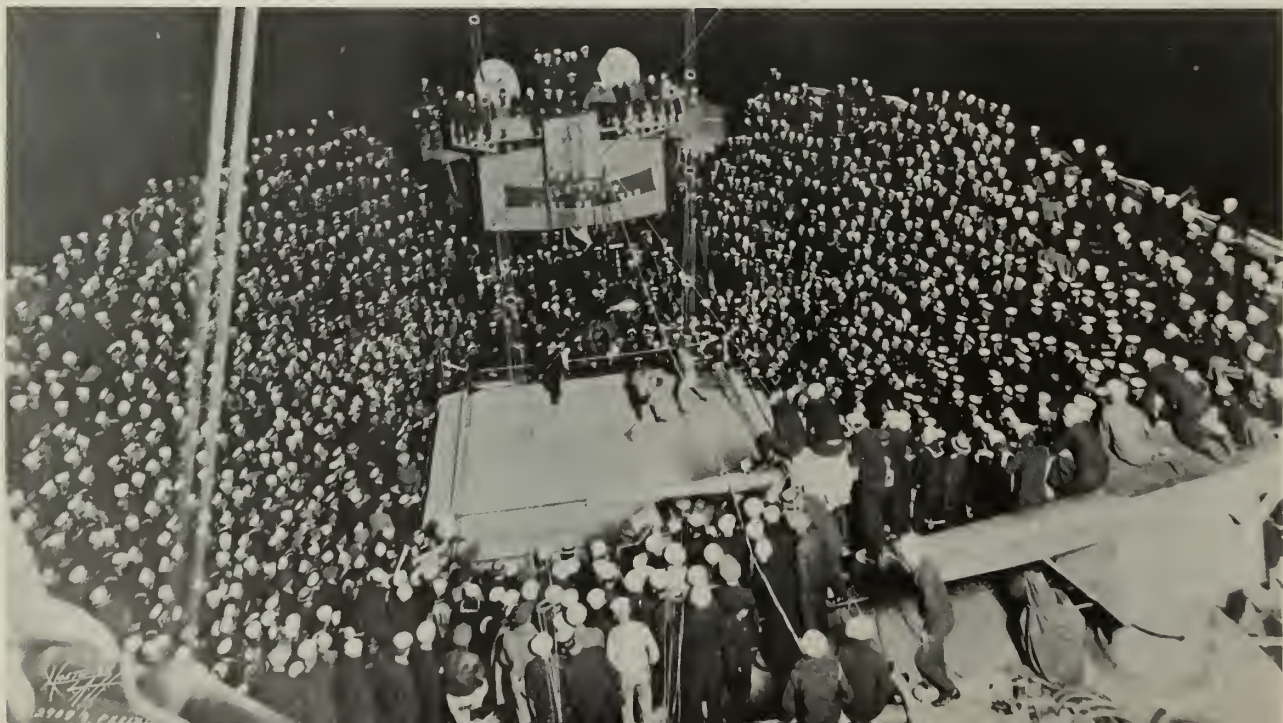
And in addition present information indicates that *California* will go to the yard on 28 June for one month. Who said the future is a mystery?

Vital Statistics

California, as flagship of the Battle Fleet, has a total complement of officers and men probably greater than that of any other ship of the Navy. There are in all some 1550 persons who call the ship home. Of this number, about 100 are officers, 20 of whom are attached to the staff of the Commander in Chief, each designated to take care of a particular part of the astounding amount of paperwork which the administration of the Fleet involves. The remaining 80 officers make up the complement of the ship itself, each with his particular duties as regards leadership of personnel, upkeep of material, and readiness of the ship for battle.

Among the enlisted personnel of *California*, 35 ratings are represented; each expert in a certain trade, there being enough tradesmen in every line to run an industrial city of some size, which, indeed, we might call the modern battleship. In addition to his job in the ordinary, everyday routine of the ship, each man has his battle station at which he gets almost daily practice at pointing the turrets and guns, supplying ammunition, keeping the ship in station in the battle line, or learning the means of minimizing the effect of enemy fire.

FULL 'HOUSE'—Fantail fights on board USS *California* like this one in 1923 produced some topnotch boxers.



The payroll of *California*, as may be well imagined, involves no mean amount of Uncle Sam's cash account. The crew is paid at intervals of two weeks, either in cash, or by government check sent to their home or to a bank if they so desire. The untruth of the old opinion that a sailor's money is "easy come, easy go" is proved by the fact that each month the Bank of Italy receives a volume of checks from the government, to be credited to the savings accounts of men of *California*.

Food in the Navy, as everywhere, is a matter of no little interest. Just as the days of the "old" Navy, of wooden ships and iron men are gone and almost forgotten, so is the old ration of "salt horse and hardtack." The modern and efficient refrigeration plant of *California* makes it possible to carry sufficient fresh provisions to last on the longest cruises. *California* has long enjoyed the reputation among the men of the whole Fleet as being a fine "chow" ship. Here is the menu of a typical Sunday:

BREAKFAST

Creamed chipped beef Cottage fried potatoes
 Oatmeal and milk Fresh fruit
 Bread, butter and coffee

DINNER

Roast loin of pork
 Brown gravy Bread dressing
 Creamed peas Mashed potatoes
 Apple sauce
 Bread and coffee

SUPPER

Cold meats Vegetable salad
 Baked beans Pickled beets
 Bread, butter and cocoa

Great care is taken in the selection of food, and all fresh provisions are inspected by a medical officer when brought aboard before issue to the messes. A sample ration is also approved by the Officer-of-the-Deck before each meal is served.

California is one of the only two battleships of the

Navy in which bunks are provided for all personnel, instead of the hammock, a relic of sailing ship days. The bedding of the bunks is always open to the air in well ventilated compartments, whereas on ships where hammocks are still used, they must be lashed and stowed away during the day under conditions not nearly so sanitary.

There are many on other ships who still argue that the hammock is the proper bed for *California*, but few who enjoy stretching out in a bunk would willingly revert to the old hammock. Lockers are also provided all men for the stowage of clothes, whereas on older ships, seabags are a man's only storeroom, and it is now unnecessary to dump the bag completely in order to get an item of clothing which is, of course, always on the bottom.

With the varied activities on *California*, in the line of recreation, as well as duty, a man may well spend his time to good advantage and enjoy life for long periods of time without time to think of hitting the beach.

★ ★ ★

It is doubtful if any local buglers have lost any great amount of sleep to date in worrying about just what call is to be used in manning the first aerial barge, but nevertheless, some means of getting the desired action may soon be necessary. A third VO plane has recently been added to our catapult gallery, and is designated as the Commander-in-Chief's plane, to do with as he sees fit. This, plus a fighting plane which we will have with us on the cruise south, makes a grand total of four vessels in our own little air squadron. Maybe *Saratoga* won't be needed after all.

En route to Balboa, C. Z., 13 Feb 1926—

Submarines are to be the major part of our building program for 1926. The V-1 and V-2 are already in commission, and the V-3 ought to be completed soon. The V-4 should be ready early in 1927. This last "undersea dog" is a submarine mine-layer. Also the V-5 and V-6 will be started this year. These new subs are of the very latest design, and will accompany the Fleet on any maneuvers.

En route to Navy Yard, Puget Sound, 26 Jun 1926—

California will send all men who can be spared to the Camp Lewis Rifle Range during our months' stay at the Yard. The first party will leave next Monday at 0900. There will be a permanent detail of about 30 men. The firing detail will include about 75 men each week in addition to the Marines.

California's detail will be under LT Morrison, who will be assisted by ENS Edmundson. Every effort will be made to qualify all hands who go to the range. There is three dollars per month extra pay waiting for everyone who qualifies as expert rifleman. Remember too that we need some new material for our championship rifle team, which won the trophy this year in Panama.

Steady on the bull and squeeze.

★ ★ ★

Almost unnoticed by many other ships in the Fleet, *Tennessee* has gotten into a position in the Iron Man race from where she threatens to take our little bronze statue from us. Right now of course she is not pushing us. We have our hands so full trying to keep ahead of *Pennsylvania* that the Rebels haven't been considered as one of our worries. But on looking around it appears



LIBERTY TIME—U.S. Navyman is all smiles while having good time seeing sights in Manila with Japanese sailors.

that she will give us just as much of a gallop for the trophy as *Pennsy*, and our ship must stand another real test, for sure.

Task Organization:

A—Scouts: Wesley Conaty, Commanding. Ten selected men, namely: Lionel Montell, Archie Furey, Ding-How Krause, Wet Beach, Cauliflower Schilke, Spic DuFour, Lancelot Densmore, Scar Face Erbe, Ashton Pig and Doc Johnson.

B—Advance Guard: Bob "Battling" Allen, Commanding. This guard will consist of as many CPOs as are ashore followed by the shock troops, consisting of one or two sections of sailors and marines.

C—Main Body: This force will consist of such CPO's as weather the first attack, and various and sundry officers who form the "wipe-up" gang.

This force will land, proceed to Panama City and head immediately toward the landmarks known as Kelly's, Metropole, Jimmy Dean's, and the American.

The scouts will start operations at zero hour and keep in touch and inform the Main Body the location of most expeditious service. This organization will retreat at plus six hours. The Advance Guard will proceed to the battle until plus six hours, when all but CPOs shall retreat. At plus 10 hours CPOs will retire and the wipers will mop up.

★ ★ ★

At a meeting of the swimming team the diminutive Jack Brimhall, next to the smallest man on the ship, was elected to pilot the barracudas through the stormy waters of the coming season. Brimhall, by the way, swims the 100-yard dash, the most grueling race of all, and is a leading contender for All-Navy honors.

Puget Sound, 26 Jun 1926—

When Damon Runyon saw Marvin Spector, *California's* heavyweight, win an extra-round decision from Joe Burman of *Tennessee* in the Battle Fleet finals, he called him a second Harry Greb, and we have a sneaking feeling that Burman seconded the motion.

"Hap" O'Connor, America's guest, dubbed him a "Tiger" after he saw him win a six-round decision from that hard-hitting marine Ted Snyder.

A few months ago Spector was matched with Jack Roper at the Pasadena Armory. The advance notices had him down as the greatest heavyweight since Tom



BIG GUN—Battlewagon USS *California* sails into port.

Sharkey and other things that made Schector himself believe that he could knock Jack Dempsey out in the first round. The night of the fight Roper brought his bull dog in the dressing room with him. The dog took one look at Schector, placed his tail between his hind legs and left Jack to his own salvation.

The "Tiger's" only fault is that he takes his training too seriously. Last year when *California's* boxers were transported to San Pedro to take part in the eliminations while the ship was being overhauled, Schector told his manager that he would meet them when they got to their destination. He went to Seattle, knocked some big lumberjack down 10 times before he finally won by a knockout in the second round, and then did road work from Seattle to San Pedro. After running that distance he had to wait two days for his teammates who came down on *Oklahoma*.

San Pedro, Calif., 23 Oct 1926—

Have you fellows noticed an old familiar face on the quarterdeck lately? Yep, fellows, he is back and doing business at the same old stand. The Iron Man is with us again, after having been AOL for several months. The Captain was so glad to see him back that he decided to give him another chance, after he had obtained his solemn promise that from now on he would be a real man-o'-warman and would never leave *California* again, his favorite home.

For the benefit of you young fellows who have not been with us long, a few words about the Iron Man may not be amiss. It was won by *Mississippi* for five consecutive years; in fact, it never left her quarterdeck from the time it was first awarded by the Navy Department to the ship excelling in athletics, until 1925 when we came to the conclusion that *Missy* had held it long enough.

And don't for one minute think that we did not have to work and work hard to get it. Because *Pennsylvania* also wanted it and they put up one of the most stubborn fights for its possession in the annals of the Battle Fleet. But then, we were not to be denied and we barely nosed her out by placing in the sailing races held at Lahaina in 1925.

When the Iron Man was first presented to us in 1925, Admiral Robison, who was then in command of the Fleet, asked the Captain of *Mississippi* to what he attributed the remarkable achievement of *Missy's* holding the Iron Man for five consecutive years. His reply was, "Although we do not win every event, we place in every event; a ship that can place in every event is bound to win."

And there in a nutshell is the secret of what is required in order for a ship to win the Iron Man.

San Pedro, Calif., 23 Oct 1926—

California lost one of the best men who ever wielded a slice bar and hoe when Joe Lauber, Chief Water-tender, was paid off Wednesday with 16 years of honorable service to his credit. Joe has all of the qualities which go to make up a good shipmate, plus the requisites for a leader of men. His firerooms have long been the pride of the B division, and his section, the second, has turned out the score for the ship, setting a new record last weekend, with a score of 127 for Saturday and 146 for Sunday. The Cub wishes him every success and happiness. Men of his caliber can't fail.

★ ★ ★
Last Saturday morning, after inspection, all hands were called aft and the Captain presented prize money to the members of the gun crews who came through with the necessary scores at the recent Short Range Battle Practice. In a short address the Captain congratulated the prize crews on their speed, precision and attention to detail in the drill.

The following gun crews received prize money:

Turret Four crew—"E" prize, \$15.00 per man.

5-inch gun 11 crew—"E" prize.

3-inch gun 1 crew—"E" prize.

3-inch gun 8 crew—Second Class prize, \$10.00 per man.

Turret Three crew—Third Class prize, \$5.00 per man.

5-inch gun 5 crew—Third Class prize.

★ ★ ★
The gang down below has been coming right along the past month, piling up the multiple in spite of all the hard luck and large expenditure of fresh water. They have put out some real work and as a result the score for the month crossed the 100% mark for the first time in two and a half years.

When you see a light haze coming out of the stack you can just put it down that the boys in the fireroom are warm. The thermometer will only register 140 and most of the time the mercury is off the scale. This intense heat is an indication that the fireroom is not using any excess air. The blower is just turning over fast enough to supply sufficient air for burning the oil.

Men on watch in the engine room and the evaporator room are just as important to the efficient operation of the plant as the fireroom watch. By the intelligent operation of the auxiliaries, cutting out unnecessary machinery, many gallons of oil are saved.

The second section of the engineers holds the record for economy, making a score of 127% on 16 October and 146% on the 17th.

Have you seen the score board up by the hot-dog stand. It gives the late returns each day, showing the amount of fresh water used per man, the total amount of electricity, and the score by day. By watching this board you can see what's happening down below, and you can also see the effect of the electric load and the fresh water expenditure.

You can help raise the score by cutting out the waste of fresh water and by turning off unnecessary lights wherever you see them. Let's keep the multiple line above the 100 mark.

"Arizona At 'em"

Colon, Panama, 8 Aug 1931—

Modernization is over. Old *Arizona* has been made

young again. New in a multitude of ways, with new officers, new men, new guns and new installations all starting a new cruise together. But the great old ship has yet carried over from the old era into the new the oldtime spirit. It is a spirit of accomplishment—accomplishment with a punch behind it—accomplishment that has given us the battle cry of “At ’em, *Arizona*.” It is a get together and stick together spirit that expresses its idea of faithful and loyal teamwork in the words “Once *Arizona*, always *Arizona*.”

★ ★ ★

Word comes from San Diego Training Station that it will soon be impossible to get into the Navy unless a man is a high school graduate. At the present time, of those enlisted, five out of every six have entered or graduated from high school. One out of every three is a high school graduate. Many have college training. The standards are being raised.

A word to the wise is sufficient. If you are now in the service and have never had high school training it would be well to ship over immediately if you desire to remain. Once out over three months it will be impossible to get back in. Also for the wise guys who know it all and are continually getting into trouble—don’t, for when a man goes out with a BCD or DD, it is impossible to get back in. They don’t need anything but the best in the Navy. Recruiting Officers have a list a mile long of fine young men anxious to take your place.

★ ★ ★

Fritz van Opel, the German rocket expert, predicts that 20 years hence it will be possible to fly from Europe to America in less than three hours, and the fare will be less than the present fare from New York to Chicago. He estimates that these ships will attain a speed of 5000 miles per hour. It is planned to use gasoline motors to attain an altitude of 20 or 30 miles when the rockets will do their stuff.

★ ★ ★

Mere newness does not necessarily supply a savour to living. It is novelty and variety that give spice to life. It is not enough that each one of us is passively carried on the new roster of the ship. We must be fired with that spirit of beating the other fellow that has given the ship its record of leadership in the past—its high standing in engineering, gunnery and communications, its formidable place in rowing and boxing and in every sport the “Iron Man” puts up to us.

Nor is it essential that we always win to prove our mettle. It is in the will to win that our final success lies—each one playing the game for everything there is in it and with every ounce there is in him, whether it be behind the deck scrubber, the throttle, the gun or the leather mittens, which produces that harmony of accomplishment which marks *Arizona* and all her works.

San Pedro, Calif., 22 Aug 1931—

We fire Short Range Battle Practice in only five more weeks, that is 28 September for the AA Battery and the week of October 5th for five-inch and turret guns. *Arizona* will be among the first to fire. With only a short time to prepare for this important practice, we must buckle down seriously to work or we shall be caught half prepared when the day rolls around for the practice. Just one week is allowed for rehearsal so we must make full use of every drill.

Pointers must not be careless. Try hard to steady on the bull each shot at drills as if you were actually firing. Shiftless or careless pointing ruins your training. You must get the habit of doing it right every time, then it will come naturally and easily when the big day comes. We have a number of good pointers on board, many new ones and extra sets in training now, and the ones we use for Short Range Battle Practice must be both expert and hard-working.

This is the biggest practice of the year for gun pointers and gun crews, qualifications, “E” prize money, etc. So get together and keep after it. Be alert and strain (without jumping at it when the buzzer goes) to get every shot off on the buzzer and every shot a hit. You must be ready, checked on, and steadied on at commence firing, and get that first buzzer.

The pointer will fire this year. He must be steady on the bull and stay there while he presses his key down hard and firmly. Do not be deceived by the large target. That is a snare and a delusion—you must steady close to the center to hit.

We want to combine hits with speed. Keep on as much as you can, all the time. We must have the hits, and some of you will get the hits along with the time to put “E’s” on those guns and the sleeve of your jumpers. Shooting these guns at short range is as easy as firing at the 200-yard rifle range—easier, with these telescopic sights. The guns are just as reliable and you should be as certain of hitting as an expert rifleman at 200 yards.

Gun Captains have great responsibility in the training of their crews. See that every one tends strictly to business and does his best. Get concentrated efforts from now on. See that any faults are corrected. Consider possible casualties and find the best ways of handling them. Learn and observe your safety precautions. Above all, be steady and cheerful in training your crew.

Both sight-setters and pointers learn which way to



PROUD SAILORS—Deckgang of USS *Pennsylvania* rig starboard gangway as another BB lies moored in harbor.



LINE OF BB's follows in wake of USS Lexington (CV 2).

move your gear without mistakes. Try not to move in the wrong direction, and make a mistake worse. Get it right the first time. Sight-setters must be accurate. See that your sights are correct after each salvo. If they jar off or you have them wrong, you will cause a miss even when the pointer is perfect.

Let's go now, fellows. Keep the crosswires on the bullseye.

★ ★ ★

uss *Texas*, flagship of CinCPacFlt, has been experimenting with Sound Motion Pictures for approximately two years. *Arizona* was perhaps the second ship in our Navy to install sound pictures, when a hurried installation was made in preparation for President Hoover's West Indies cruise aboard this ship.

Now that the "talkies" are here to stay, and many of the capital ships and shore stations are installing their equipment, we are looking forward to a lot of first class entertainment. We can count on the Navy to get the best.

Next week's programs will be as follows:

24 Aug—The Golden Calf—Sue Carol and Jack Mulhall (8 reels).

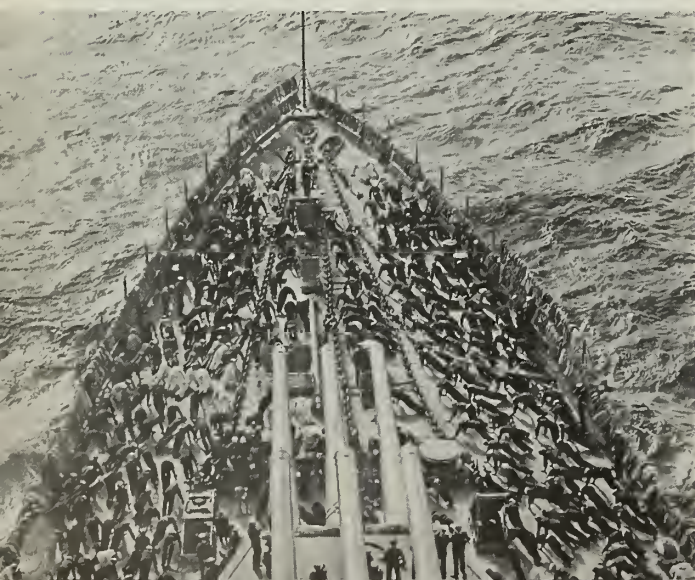
25 Aug—Paramount on Parade—All Star Cast (13 reels).

26 Aug—Tailor Made Man—Wm. Haines and Dorothy Jordan (9 reels).

27 Aug—The Sea God—Richard Arlen and Fay Wray (9 reels).

28 Aug—Those Three French Girls—Fifi Dorsay and Reginald Denny (8 reels).

IN SHAPE—Battleship sailors form unusual pattern on deck of USS *California* while exercising with push ups.



29 Aug—Men Call It Love—Adolph Menjou and Leila Hyams (8 reels).

30 Aug—The Storm—Lupe Velez (9 reels).

"Mississippi Bulletin"

En route Corinto, Nicaragua, 2 Aug 1930—

Thirty-six officers and 3000 men, who have been sojourning at Coco Solo, boarded *Mississippi* last Wednesday afternoon—destination, Corinto, Nicaragua.

These officers and men are all linguists, first grade, and can speak Spanish better than English. They may be sailors and officers in the U. S. Navy, but commencing next week they will be on duty in Nicaragua. Each one will take his place in a certain city or farming community during the election to be held in that country.

We have enjoyed having them aboard for three days, and will be sorry to see them disembark today. Good-bye and good luck. We'll be glad to take you back next spring on our way east.

At anchor San Pedro, 20 Sep 1930—

The Scrappy Sixth gained the title of the pea-shootin'-est fools in this man's Navy last Thursday, coming within three points of the Navy record for three-inch AA batteries eight years ago. The final merit for the practice was the best the Home Ship has made in 13 years of three-inch Short Range Battle Practice, and gives the main and secondary batteries something to shoot at.

Preliminary training was conducted by LTJG Jack Frost, who was denied the honor of controlling the firing by reason of his detachment a few weeks ago. He certainly shares in the glory, and has already been notified of the great performance of his old troops. His proteges, ENS Bernet and ENS Waterhouse, brought the batteries up to the mark, and ENS Bauer, the latest addition to the list of head men, got in his licks and was a valuable assistant in the control group.

★ ★ ★

At 2100 Thursday the annual Full Power trials were started, and the entire engineer's force was on its mettle. The trials once started must be completed or a tremendous penalty be taken. Progressive penalties up to 20.00 would be suffered. Thus if the trials would have been stopped early because of any derangement, the present year's score of 105.187 would have become a merit of 85.187, which would stand the ship wooden in competition.

Only three minutes after the Full Power Run was begun No. Two thrust shoe of No. One shaft wiped. In spite of feeding oil by hand, three more of a total of seven wiped. Hoses to the oil tanks were immediately rigged, and three men took watches for the remaining nine hours spraying the thrust bearing. Who said there were no thrills in engineering.

We congratulate the engineers on their excellent performance. There were no penalties. And, in congratulating, we bear in mind all those on whose stations there were no emergencies or thrills. Too often, smooth operation receives no thanks. May the good work go on.

This was the Navy 30-odd years ago, when the 16-inch gun battleship was king. Those days are gone forever, but the memory—and the esprit de corps—lives on.

YOU'LL FIND PLENTY of salt sprinkled on your food for thought in the books selected for review this month. The subjects range from the battle of Bunker (or Breed's) Hill to implications of the space age. These, as well as many other new titles, may be found in your ship or station library.

Let's consider the think pieces first. *American Strategy for the Nuclear Age*, edited by Walter F. Hahn and John C. Neff, gives the usual frightening picture of Communist strategy versus Free World strategy. There are 34 articles by statesmen, scholars, military experts and international businessmen which, in general, discuss present and future Communist strategy as based upon little known writings of Lenin and Mao Tse-tung. The main dilemmas which face the West are considered, as well as what has and has not been done to meet the many aspects of Communist activity in our present protracted conflict.

The Edge of War by James D. Atkinson takes a little more optimistic view of our struggle with Russia. Atkinson discusses the Russian theory of warfare—its objectives, methods, use of non-military means, and how all this affects the nations Russia has selected for her victims. However, by delving into past history and paying particular attention to the recent U. S. success in blocking Communist infiltration into Iran and Guatemala, he shows that the United States has the flexibility and intelligence to beat its opponent at its own game without resorting to outright war. As President of the American Military Institute, the author should know what he's talking about.

Hitler Confronts England, by RADM Walter Ansel, usn (Ret.) is another piece of solid, scholarly work. Here, the author discusses the problem which has intrigued many individuals ever since 1940. It is his opinion that the answer may be found in the mentality and personality of Hitler. His data is drawn not only from the German records but from the recollections and memoranda of many of the participants, whom the author has interviewed and with whom he has corre-

sponded. As a professional, he also exposes grave deficiencies in the German command structure of World War II.

Considerably lighter in tone, *The Proudest Day*, by Charles G. Muller, also deals with a historical event of considerable importance. The protagonist here is not the head of a state but LT Thomas Macdonough, the victor in the battle of Lake Champlain in the War of 1812. The actual battle was the easiest part for Macdonough. His superiors were jealous and the Vermonters, who were supposed to cooperate with him, preferred to continue with their lucrative smuggling which would be destroyed if Macdonough were to win. Furthermore, before he could engage in a naval battle, he had to build the ships with which to fight.

POINT OF VIEW—Navy photographer captures picture of USS *Intrepid* (CVA 11) while flying over ship.



His first "fleet" of two scows and six sloops was wiped out, but with his second, he fought one of the fiercest naval engagements in history and ended all threats of an invasion by the British by way of Canada.

Tragedy at Honda, by Charles A. Lockwood, VADM, usn (Ret.) and Hans Christian Adamson, Col., USAF (Ret.) is also concerned with U. S. naval history, but on a slightly different level. This is the story of the nine U. S. destroyers which followed their leader through fog onto a rocky California coast in 1923. As the greatest U. S. naval disaster before Pearl Harbor, it is recounted in hour-by-hour detail by a team of skilled authors who have earlier written *Hellcats of the Sea* and *Through Hell and Deep Water*.

Three novels have been selected for comment this month. Each one is a gee-whizzer. Let's consider *The Long Haul*, by D. A. Rayner first. The locale is just a little hairy. A destroyer is given the assignment, in war time, of towing a disabled, unmanned tanker full of high-octane gas for 600 miles. There is an attack by German submarines, then a fire on board the tanker. Yet the destroyer continues, even engaging in combat, but keeping the tanker in tow. The skipper's refusal to abandon his charge makes *Long Haul* quite a story of courage. CDR Rayner has also written several other sea yarns, including *The Enemy Within*, *Valor*, and *The Long Fight*.

Now We Are Enemies, by Thomas J. Fleming, is the Bunker Hill yarn referred to earlier. This is not a standard historical novel of the swashbuckling hero and deep-breathing heroine genre but, instead, a reenactment through the eyes of its actual participants of the first major engagement of the American Revolution. It does much to break the earlier schoolbook myth, and in doing so, brings the men concerned much more alive and real. The author is following the current trend in historical novels of bringing his characters alive through infinite, careful detail. When well done, as this is, the technique makes for excellent reading.

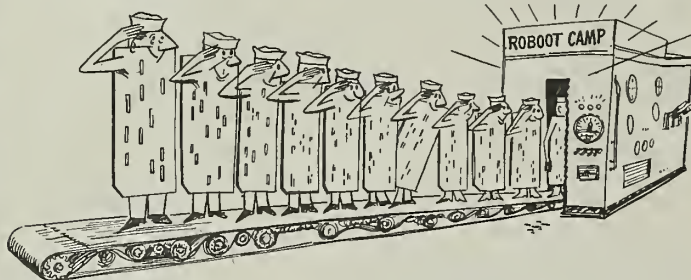
Where the High Winds Blow, by David Walker, is a novel which centers primarily about the opening up of the Canadian northwest and the career of the industrialist who made it possible. A different western.

A COUPLE OF PRESS RELEASES almost have us convinced that someday we may find ourselves putting out ALL HANDS in two editions—one in regular form for people-type Navymen, and the other on punched cards or magnetic tape for electronic sailors.

One release is about Project SURIC (for SURface ship Integrated Control) a study designed to reduce the manpower requirements of surface ships by turning many of their control functions over to automation. The other is about the Naval Tactical Data System, a data-processing and communications hookup that can collect information from radar, sonar and such; evaluate an enemy threat; and, after a few millionths of a second, recommend countermoves to the commander of a task force.

Using these items as fuel, we have fired up the rockets of our imagination and sent it roaring off several hundred years into a fantastic future for a glimpse of tomorrow's Navy:

- Perhaps machines can advance to such an extent that a ship could be manned not only by Navymen but by "Navychines."



Cruising the seas like some sort of electronic Flying Dutchman, a ship might be programmed with magnetic tape to sail on and on for years at a time. Unlike men, the machines would not have to go ashore for liberty. Instead, they could just be unplugged every once in a while for rest and rehabilitation.

- To provide a career incentive program for the Navychines, a promotion plan might be established. For instance, a typical "electronic recruit" might enter the Navy as a fuzzy-cheeked young electric razor and come out of boot (or perhaps "roboot") camp as an adding machine striker. After that, as it grew older and more experienced, the machine might work its way upward through various grades until it was made an electronic brain with authority to make out evaluation sheets of machines junior to it.
- Once the age of iron ships and electronic men really got going, sea duty would really be at a premium for most ratings—except perhaps for the machine accountants who might be needed to handle mechanical troubles.
- In combat, where the human element is so important, the people-type captain would have the choice of using his own ideas as to the best way to handle a situation, or he might follow the automatic suggestions produced by his ship's electronic brain. In case the captain chose to disregard the machine's advice, and things went wrong, the electronic adviser could probably be programmed beforehand to light up and say, "I told you so."

This welcome little human touch would undoubtedly help keep the captain from feeling so all alone in the electronic world, and remind him that things were not so different in the old days.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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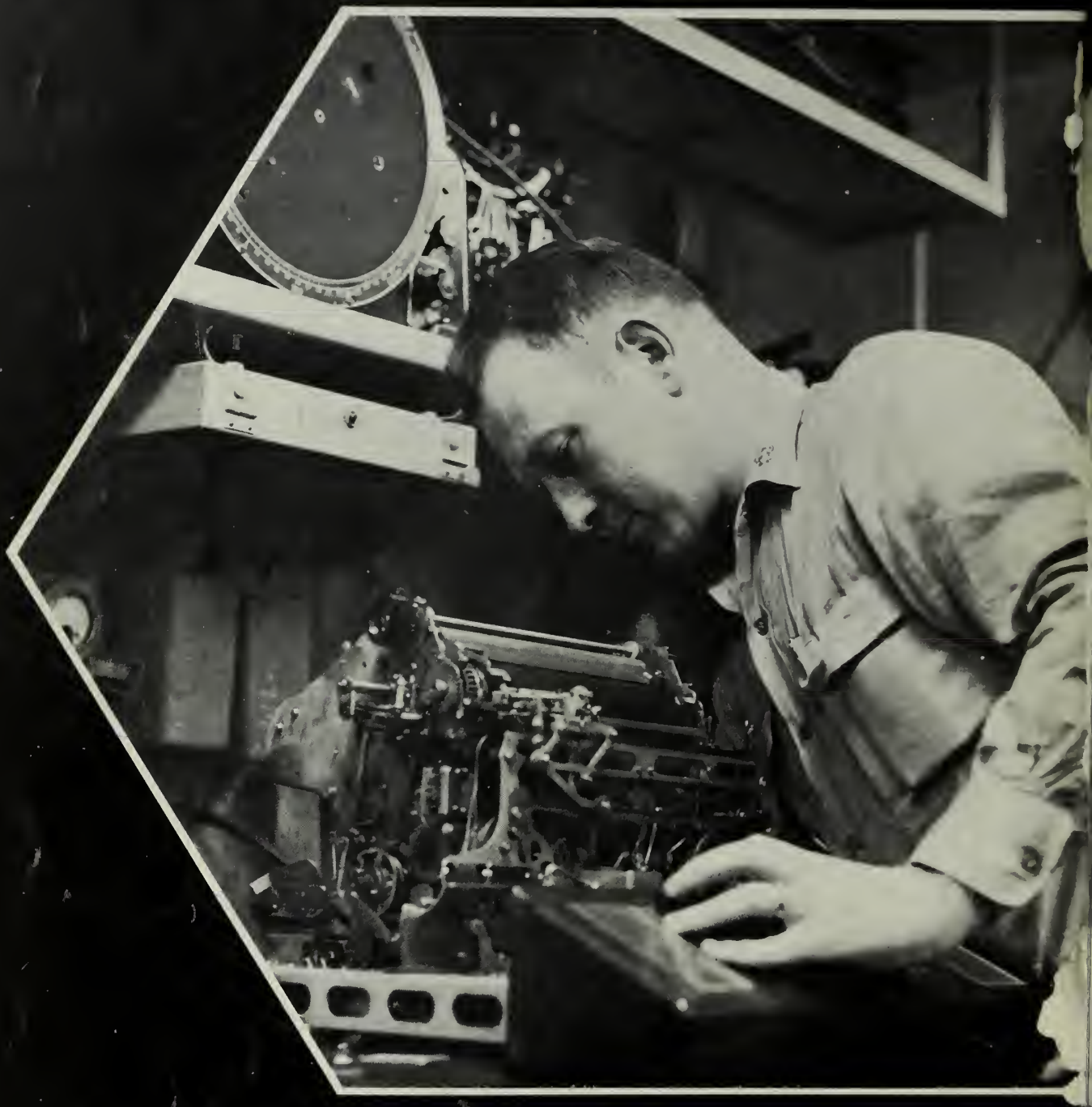
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• **AT RIGHT: THAR SHE BLOWS**—Enlisted aerologists, decked out in cold weather attire, take a reading on an anemometer to report wind conditions while on cruise through frigid waters.



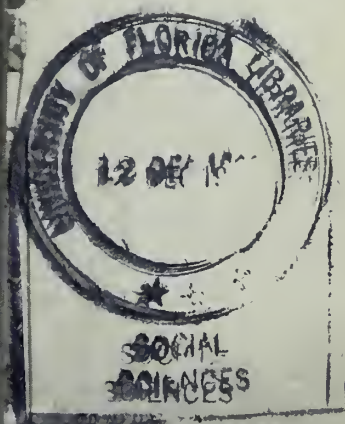


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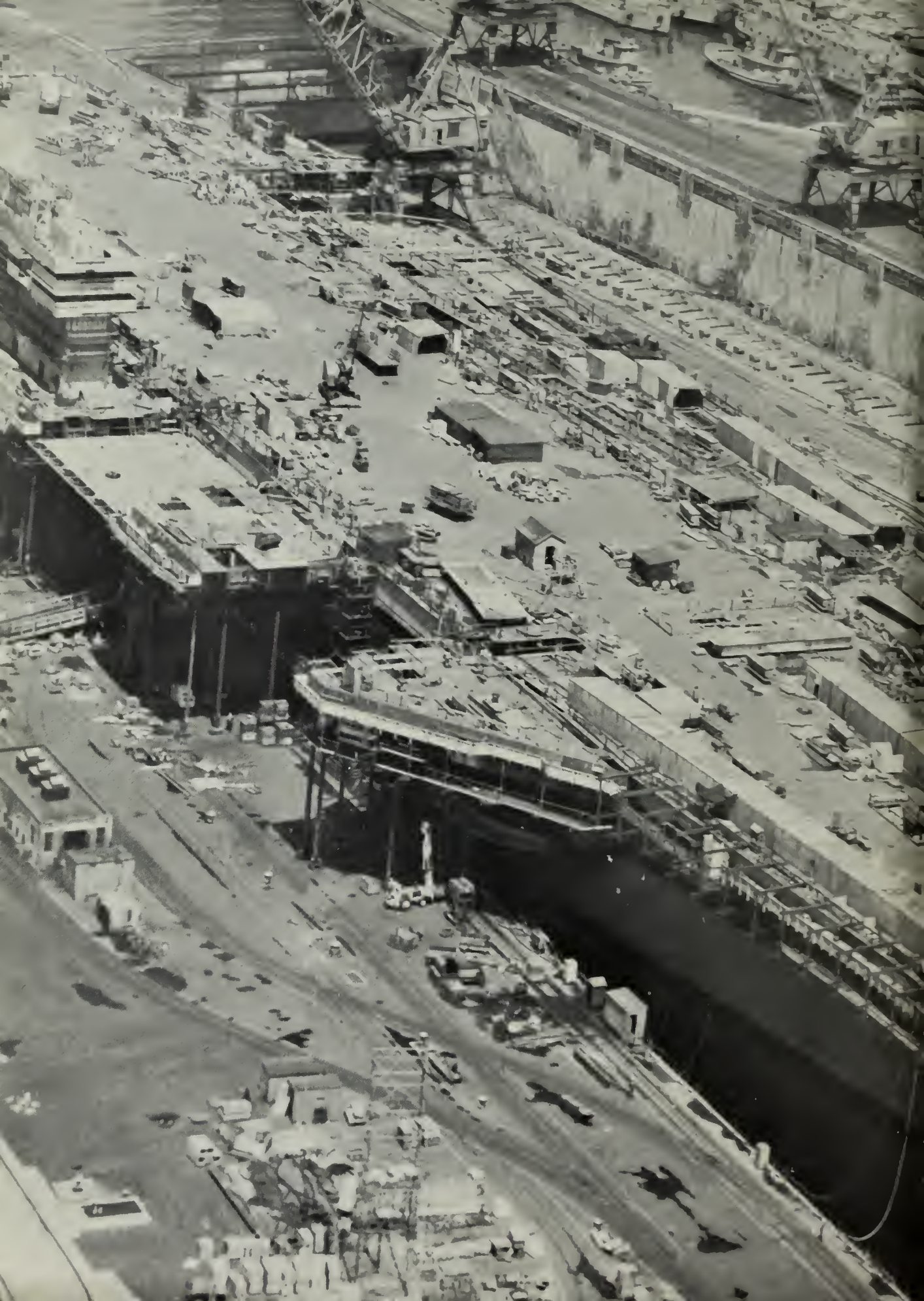
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This magazine is intended
for 10 readers. All should
see it as soon as possible.
PASS THIS COPY ALONG

DECEMBER 1960

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ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

DECEMBER 1960

Nav-Pers-O

NUMBER 527

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• **FRONT COVER: ROUGH RIDERS**—Cruisemen on board Second Fleet Flagship, *USS Northampton* (CLC 11), find the going on the rugged side as they cruise through North Atlantic waters on one of their varied assignments.

• **AT LEFT: FULL 'HOUSE'**—*Constellation* (CVA 64), Navy's sixth *Forrestal* class carrier, overflows her drydock at New York Naval Shipyard as the carrier's large flight deck takes shape. *Constellation* will be completed in May.

• **CREDITS:** All photographs published in *ALL HANDS* are official Department of Defense photos unless otherwise designated. Photo top page 27 by University of Wisconsin News Service.



KEEPING UP—USS *Boston* (CAG 1) proves she belongs to the missile age as she fires a *Terrier* from stern launcher.



Cruisers

NOW UNDER CONSTRUCTION at a shipyard in the northeastern part of the country is a ship that—well, her name is *Long Beach*, which is, of course, the name of a port in the southwestern part of the country. But that's not the point.

On 14 Jul 1959, she became America's first nuclear-powered surface ship to be launched. And she is the first ship designed and built from the keel up as a U.S. cruiser within the past 15 years. Her armament will consist of *Talos*, *Terrier* and *Asroc* missile batteries.

Missiles on cruisers are nothing new; they date back to 1955. But the all-missile feature of *Long Beach*, and of three other former heavy cruisers now under conversion, points up a certain quality about cruisers. Through the scores of years they've been part of the Navy they have always kept pace with technological and tactical developments.

Not long before World War II—when naval warfare was viewed as one line of battleships slamming away at another line of battleships—cruisers were considered scouts and fast wing ships. First they were to locate the enemy fleet. Then they were to deliver blows in support of the BBs and dash to any part of the battleline that needed help. They were also to break up an attack by enemy light forces.

As events turned out, World War II sea fighting wasn't like that at all.



SALTY CREWS—Starboard watch of USS *Boston* pose for photo in 1888. Below: Cruisemen line up for inspection on board USS *Northampton* (CLC 1).





ON DUTY—USS Newport News (CA 148) framed by sister ship's guns. Rt: Rochester (CA 124) blasts enemy in Korea.

Are Better Than Ever

Though there were a few instances of cruiser against battleship, most cruiser surface actions consisted of gun battles with enemy cruisers and destroyers. They played two other equally important roles. They provided close fire support during landing operations, and they offered anti-aircraft support to carrier task forces.

AS FOR THE CRUISER'S ROLE in the Navy of today and the immediate future, it is seen as that of a ship able to match the speed and endurance of the attack carrier in all weather and in all states of the sea. It is one in which the cruiser is equipped not only to detect and track enemy aircraft, but also to control friendly interceptor aircraft and detect and destroy enemy submarines.

One top expert on the subject points out that in addition to this role there must be certain "coordination" facilities—namely, the facilities afforded the cruiser CO or cruiser division commander to coordinate anti-air warfare—and to do so at a good distance from the friendly naval forces under attack. The units to be coordinated would be frigates, destroyers, destroyer escorts—and aircraft.

In other words, the cruiser's role is one in which the cruiser spearheads the *defense* of the striking force. The carrier and its strike aircraft, would, by contrast, then be

left free to concentrate on the *offense*—making the attack. In Fleet exercises today cruisers are already practicing such control and coordination.

As they become more and more missile rigged, another role opens up for cruisers. It is one that sees them on lone-wolf missions. Cruising far, fast and alone, they would launch their missiles against enemy forces from little-expected positions.

CRUISERS HAVE long been flagships. They are well fitted for the job not only by their high speeds and long cruising ranges but also by their ability to accommodate the additional men and gear that invariably accompany the flag officer.

For several years back in the 1920s *uss Seattle* was flagship of the United States Fleet. In the late 1930s cruisers were flagships for the Asiatic Fleet (*Augusta*); Battle Force Destroyers (*Concord*); Destroyer Flotilla One (*Raleigh*); U.S. Fleet Scouting Force (*Indianapolis*); Scouting Force Cruisers (*Chicago*); Scouting Force Aircraft (*Memphis*) and U.S. Fleet Submarine Force (*Richmond*). *Omaha* was in the Med area as flagship of a special force (Squadron 40-T) on duty in Spanish waters.

The cruiser-flagship rundown today is: First (Pacific) Fleet—*Helena* (CA-75); Second (Atlantic) Fleet—*Northampton* (CLC 1); Sixth (Mediterranean) Fleet—*Des Moines*

'STEEL CRUISER' USS *Boston*, authorized in 1883, beginning of modern CAs.





OLD TIMERS—Unarmored cruisers like *USS San Francisco* preceded armored cruisers. Rt: *USS New York* led off.

(CA 134); Seventh (Far East) Fleet—*St. Paul* (CA 73).

Basic "command" unit of the cruiser is the division. (There is no such thing as a cruiser squadron or a cruiser flotilla.) The Navy's active service cruisers are split among five divisions, with the exception of the Seventh Fleet flagship, which remains unassigned. The PACFLT divisions are CRUDIV One and CRUDIV Three, which are units of the PACFLT Cruiser-Destroyer Force. In the Atlantic Fleet are CRUDIV Two, Four and Six. They are units of LANTFLT's Cruiser Force—which had been BATCRULANT when battleships were still in the active Fleet.

ONE OF THE THREE SHIPS of CRUDIV Six is *USS Northampton*. Flagship of the Second Fleet, she is the

only one of her kind—a tactical command ship. *Northampton* is a sea-going headquarters during carrier and amphibious operations. She is not a true cruiser, but had her keel laid (in 1944) as a heavy cruiser of the *Oregon City* class and, after lying dormant for a number of years, was then given increased communications, radar, and headquarters equipment and spaces in place of the usual eight-inch turrets.

In active service today are 16 cruisers, about evenly divided between the Atlantic and Pacific Fleets. Seven of these are CAs (heavy cruisers). Two are CAGs (guided missile heavy cruisers). Six are CLGs (guided missile light cruisers). There is also one CLC, which is a tactical command ship.

Of the seven CAs, *Des Moines*

(CA 134) and *Newport News* (CA 148) are *Salem* class ships. There are four of the *Baltimore* class, and one of the *Oregon City* class, namely *Rochester*.

The "*Salems*" are our largest CAs and the largest "true" cruisers in the world. They weigh in at 21,500 tons (full load), are 716½ feet long and mount nine eight-inch rapid fire rifles in two forward turrets and one turret aft. (Russia's famed *Sverdlov*-class cruisers are rated at 19,200 tons (full load); 689 feet in length. They have 12 six-inch rifles in four turrets.)

"*Baltimore*s" are rated at 17,200 tons; 673½-ft. length. With a 71-foot maximum beam they have a speed in excess of 33 knots. Two carry *Regulus* missiles, though they are not considered missile cruisers. *USS Rochester* (CA 124), with a single stack rather than a pair of stacks, is a "modified *Baltimore*," about 300 tons heavier than the others.

The Navy's two CAGs are *Boston* (CAG 1) and *Canberra* (CAG 2). Converted *Baltimore*s, they fire intermediate-range, beam-riding *Terrier* missiles. These are carried in twin launchers mounted tandem fashion about where the after eight-inch turret had been located.

GUIDED MISSILE LIGHT CRUISERS, of which there are six, are conversions from *Cleveland* class conventional "lights." Their tonnage runs about 14,600 and their length is 610 feet. In addition to five-inch and six-inch rifles, they mount twin *Terrier* or *Talos* launchers. *Galveston* (CLG 3), *Little Rock* (CLG 4) and *Oklahoma City* (CLG 5) carry the 3000-lb., ramjet-powered surface-to-air *Talos* missile. *Providence* (CLG 6),

SUNNY SIDE—Heavy cruiser *USS Des Moines* (CA 134) moors pierside at Toulon, France, near French cruiser while serving as flagship for the Sixth Fleet.





PAST AND FUTURE—USS *Olympia* is representative of the protected cruisers. *Rt.* First CG(N) will soon join the Fleet.

Springfield (CLG 7) and *Topeka* (CLG 8) carry *Terriers*. All missile launchers are mounted in the after part of the ship.

Four CLGs were, during their conversion from CLs, refitted as flag-ships. Their bridge and forward superstructure areas were revamped to make more flag and communications spaces.

For many years the main distinction between U.S. cruiser types has been *light* and *heavy*—the former with six-inch rifles and the latter with eight-inch rifles. Supposedly, weight had nothing to do with the matter, though it usually turned out that the heavy cruiser had thicker armor and was a lot heavier than the light cruiser. These terms, by the way, date back to a naval armament conference of the early 1920s.

NOW UNDER CONVERSION at naval shipyards are two *Baltimore* class and one *Oregon City* class ex-heavyweights that foretell the end of the light-heavy division. Their designation is simply guided missile cruiser (CG). *Albany* (CG 10), *Chicago* (CG 11) and *Columbus* (CG 12) are their names and numbers.

Albany is the lead ship of this trio. She will have sonar and *Asroc*—the antisubmarine rocket system. She will have “macks,” which, as the word suggests, are combination stacks and masts. And, far in advance of the CLGs with their single twin-launchers, she will mount four launchers. Twin *Talos* launchers will be mounted both fore and aft; while amidships there will be a pair of *Tartar* single launchers.

In the Reserve Fleets are 28 cruisers. Of these, eight are heavies, 17 light, and three anti-aircraft light cruisers (CLAAs).

The CLAAs (now in Reserve, out of commission) check in at 8000 tons and at 541 feet in length. Six five-inch twin mounts are their main weapons.

CRUISERS ARE GREAT “show the flag” ships. They have the ability to cruise great distances without refueling. They can stow a lot of provisions. And they are exceptionally impressive looking ships. It's not just that they have good lines, but they are mighty potent looking.

Consider the case of *Canberra*. In October she completed an extended circuit of the globe in which she served with each of the Navy's active Fleets within one year. Among the more colorful ports visited were Apra Harbor, Guam; Hong Kong; Subic Bay, P.I.; Singapore; Cochin,

India; Karachi, Pakistan; Beppu, Japan; and Sydney and Melbourne, Australia. She received more than 60,000 visitors.

No other type so well portrays how ships evolve over the years. In our nation's early history the terms warship and frigate were almost the same. When steam power arrived, frigates came to be known as steam frigates or screw frigates.

In 1883 work began on three ships that marked the beginning not only of the modern Navy but also of the Navy's modern cruisers. This work was authorized by an Act of Congress dated 3 Mar 1883, a key date for the cruiser Navy.

Atlanta, *Boston* and *Chicago* were the three ships. The first two, completed at the New York Navy Yard, displaced 3189 tons and were 283

MORE MISSILES—Some heavy cruisers carry the *Regulus I*, surface-to-surface guided missile even though they are not classified as guided missile cruisers.





FOUR STACKER USS *Chesier* (CL 1) was light cruiser of 1908 vintage. Rt: USS *Pensacola* (CA 24) photographed in '35.

feet in length. *Chicago*, built at Chester, Pa., had a 4500-ton displacement and a length of 342 feet. "Steam cruising vessels of war" and "steel cruiser" were terms used in the legislation behind these ships.

Though not very large and though they still carried masts, yards, sails and other wind-ship rigging, they were a great improvement over what the Navy then had. And they pointed the way to further developments.

By mid-1895, 12 more cruisers had gone into service. Eleven of these, like the "A, B, C ships," were considered *protected cruisers*, because of their protective armor decks.

A representative protected cruiser was USS *Olympia*, Dewey's flagship at Manila Bay. This 5500-ton ship had a 20-knot speed. She mounted four eight-inch and 10 five-inch rifles; 14 six-pounders and six one-

pounders; plus six torpedo tubes. Her deck armor was $4\frac{3}{4}$ inches at the thickest.

FIRST CRUISER of this era that was not a protected cruiser was USS *New York*. She led off the Navy's *armored cruisers*, a type of ship even better known than the protected cruiser. The armored cruiser had side armor as well as deck armor.

Following *New York* came *Brooklyn*. An 8200-tonner commissioned in 1896, she had a three-inch-thick side belt. Steam power versus electric power trials were held for training the turrets aboard *Brooklyn*. The upshot was that electric power was introduced generally in the Navy for this purpose.

The "big ten" came on the scene in 1905-08. Though armored cruisers, they were named for states. Four of this group had 10-inch rifles, the others had eight-inchers. All had

submerged torpedo tubes. Three scout cruisers—*Chester*, *Birmingham* and *Salem*—appeared on the scene in 1908. Mounting five-inchers and three-inchers, they were lightweights of 3750 tons, in contrast to the 14,500 tons of the four largest "big tens." It was on *Birmingham*, in 1910, that the first flight was made from a ship.

In 1916 Congress authorized 10 scout cruisers and six battle cruisers. The battle cruisers were given famous names: *Lexington*, *Constellation*, *Saratoga*, *Ranger*, *Constitution* and *United States*. They were to weigh 35,300 tons, mount eight 16-inch rifles and have a 35-knot speed. All had their keels laid in 1920-21, but because of the 1923 naval disarmament conference, four of them were cancelled out. Work continued on two of them, however. And in 1925 *Lexington* (CV 2) and *Saratoga* (CV 3) went into service—not

BATTLE TALK—Eight-inch guns of USS *Toledo* (CA 133) shell enemy in Wonsan. Rt: A CL sounds off during WW II.





ONE OF TWO—King-size cruiser *USS Guam* (CB 2) patrols in war paint. Rt: Cruisemen of 1880s hold cutlass drill.

as cruisers as originally planned but as aircraft carriers—and the largest of their era.

The 10 scout cruisers were commissioned between 1923 and 1925. Known as the *Omaha* class, they had four stacks and slim lines and came to be designated light cruisers. Fast (35 knots) but light (7050 tons) they served through World War II. Nine were scrapped in 1947. *Milwaukee* had served five years in the Russian navy and was not returned until 1949, when she too was scrapped.

Nine *Brooklyn*-class CLs of 1937-39 were the next "lights." They carried four seaplanes each and had six-inch rifles in five turrets. Then came two modified-*Brooklyns*: *St. Louis* and *Helena*. After this—from 1940 to 1946—came the Navy's most numerous class of cruisers, the 27 sisters of the *Cleveland* class and two sisters of the *Fargo* class.

SPECIAL WORLD WAR II types were the CLAAAs, meaning anti-aircraft "lights." In all, there were 11 of these; two of them, *Atlanta* and *Juneau*, went down in action.

As with light cruisers, there has been much variety among heavy cruiser types from the 1920s to the present. In 1929 the 9100-ton (standard displacement) *Salt Lake City* went into service with 10 eight-inch rifles in two twin and two triple turrets. Her sister ship was *Pensacola*. These were followed during the next two years by the six *Northampton*-class "heavies." Then, in the early and mid-1930s came two *Indianapolis* class CAs and seven of the *Astoria* class. The *Astorias* had a cruising range of about 14,000 miles.

Largest group of heavies were the *Baltimore*s. The 10 ships of this class were commissioned in 1943-46. A three-ship modified-*Baltimore* class, led off by *Oregon City*, followed. Of

the straight *Baltimore* class, five are still in commission—*Boston* and *Cannberra* as guided missile heavies and *St. Paul*, *Helena* and *Los Angeles*, as non-missile CAs. *Macon*, also a non-missile ship, is now being transferred to the reserve fleet.

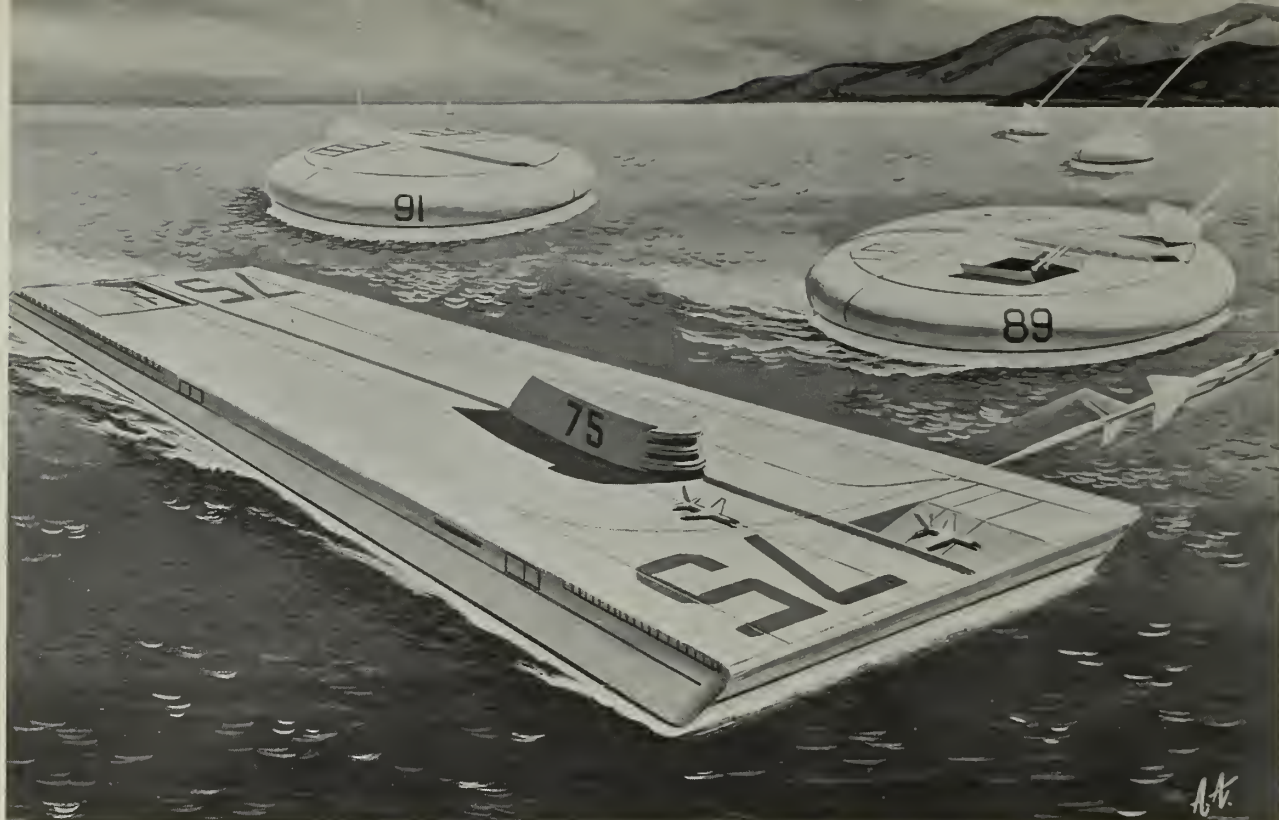
USS Salem has the distinction of being the Navy's last cruiser to go into commission, as a conventional cruiser, that is. (The CLGs were decommissioned before conversion and later recommissioned.) *Salem* led off a class of three CAs, two of which are still in the active Fleet—*Des Moines* (CA 134) and *Newport News* (CA 148).

Newport News went into commission in January 1949, just five months before *Salem*. She bears out the fact that cruisers really live up to their name as cruising ships—for since her commissioning she has steamed some 590,000 miles.

—W. J. Miller, JOCM, USN.

AT SEA—Guided missile light cruiser *USS Galveston* (CLG 3) packs *Talos*. Rt: Cruiser is refueled in the Med.





TOUCH OF TOMORROW—Drawing shows possible applications of hydroskimmers as carrier and missile launchers.

Sailing on a Bubble

The October 1960 issue of ALL HANDS, page 8, contained an article entitled "Meet the Grasshopper Ships," about the Navy's new hydrofoil craft. Moving at high speeds, its hull rises free of the water, being supported by fragile-appearing hydrofoils, that sit in the water.

Here's a report on a revolutionary and still different type of craft—the hydroskimmer. This one rides out of the water, sitting on a bubble of air.

YOU MIGHT CALL IT a helicopter without a tail, but it doesn't fly high enough. On second thought, you might call it a car without wheels. No, a car can't travel over water and this machine can cross water, mud, snow, or ice just as easily as dry land.

To be quite objective, it's more of a half-breed—half helicopter and half automobile with the extra qualities of a boat thrown in. Although these vehicles are generally known as Ground Effect Machines (GEM), most officials in the Bureau of Ships describe any GEM which operates over water as a hydroskimmer.

The hydroskimmer rides on a bubble of air. In its very simplest appli-

cation, think of an upside-down wash tub with a powerful fan mounted down through the middle. Now, when you turn on this fan, the tub will rise off the ground. Maybe not evenly or maybe not on all sides, but it will rise up because of the effect of the air being forced into the cavity with no place to escape.

Even out this air pressure, or in other words, let the same amount of air pressure escape on all bottom edges at the same time, and the tub will rise free of the surface—provided you have enough power. Apply more power and your tub will fly higher. Get a larger tub and your machine will become more efficient. So mount a fan inside a tub and you'll have yourself a hydroskimmer.

ALTHOUGH STILL VERY MUCH in the research stage, GEMs are believed by Navy experts to have a great potential, especially for a breakthrough in speed and for amphibious operations. They could carry troops and supplies from the ships to well beyond the shoreline. Larger ones could one day cross the ocean and deposit supplies on the beach.

Antisubmarine warfare may be

another field where hydroskimmers will prove valuable. An ASW craft of this type could sit quietly on the surface until a contact is made, and then fly in for the kill at speeds of 80-120 knots. It could operate for longer periods than a helicopter because it would ride on the surface for certain periods, yet speed to the area of the contact faster than a ship. This yet-to-be tested method of ASW operation is called the Grasshopper Technique. It will probably first be used by the hydrofoil patrol craft currently under construction (See ALL HANDS, October 1960).

Hydroskimmers haven't quite acquired their sea legs yet. One expert has commented that they are in the same stage of development now that airplanes were in 1909. In fact, the most ideal shape and propulsion system has not yet been determined. Currently it appears that a rectangular or almost round one is the most desirable.

One of the most successful skimmers yet tested, the *Hovercraft*, was oval-shaped. It was built in England and has made a successful English Channel crossing at speeds of 30 knots. (It is capable of 50 to 60

knots as currently modified.) This crossing proved so successful that a British company has announced plans to build a 100-ton vehicle to be used as a channel ferry.

Ground Effect Machines have caught the fancy of men in almost every field of transportation. A Bureau of Ships spokesman said that there is one already offered by a civilian company.

They are not the answer to every transportation problem, by any means. Right now, for example, the Navy is not even sure what type is the best suited for its purpose.

ENGINEERS AT THE David Taylor Model Basin, where much of the Navy's testing is done, say that hydroskimmers can be divided into several basic types. Which one is best, and which one, if any, will finally become a Navy craft, is not yet known. In the meantime, each of the following types is being tested and considered.

- *Plenum chamber*—This is as close to the simple wash tub hydro-



TODAY—Navy's experimental skimmer, *Hydrostreak*, runs on top of water.

skimmer as you will get. Air is forced down from the top and allowed to escape around the edges. As explained earlier, this lifts the machine free of the ground.

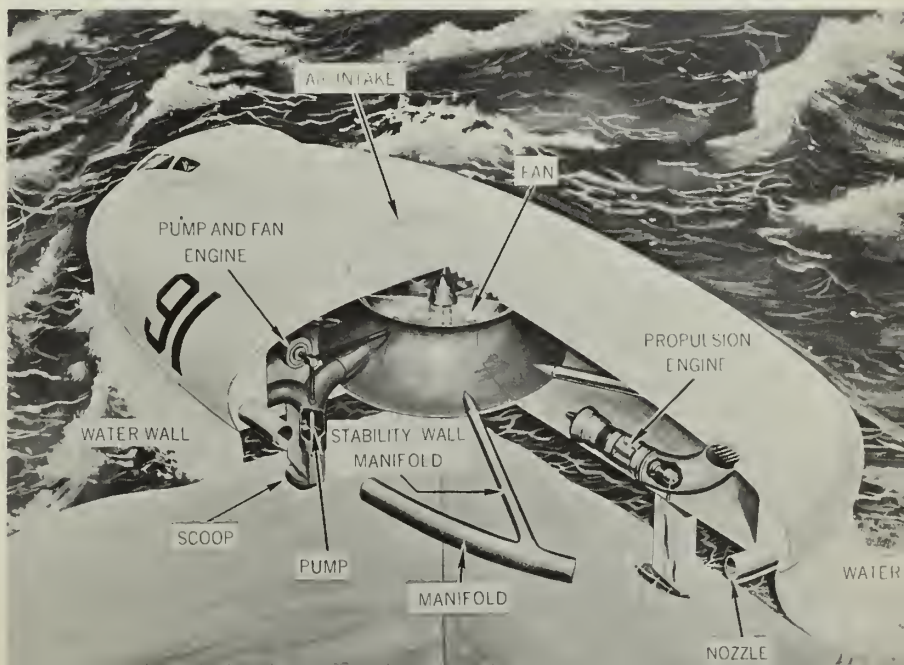
• *Air curtain*—For this type machine, it will be necessary to add some more parts to your wash tub. First, put air jets pointing down and inward around the bottom edges. Next, divide the bottom of your tub into sections, let's say quarters, with open air ducts between sections. Here's how to make your machine work. First, force air down through the ducts between sections. This will form a high pressure air cushion on which your craft can ride. The air jets will hold the bubble under the skimmer. If your tub is rectangular you could add side walls (or skegs) and only have the air curtain forward and aft. This particular type, however, would probably be limited to use on water. Forward motion for this machine, like most others of this type, can be furnished by changing the angle of the air jets, or by separate propellers, or both.

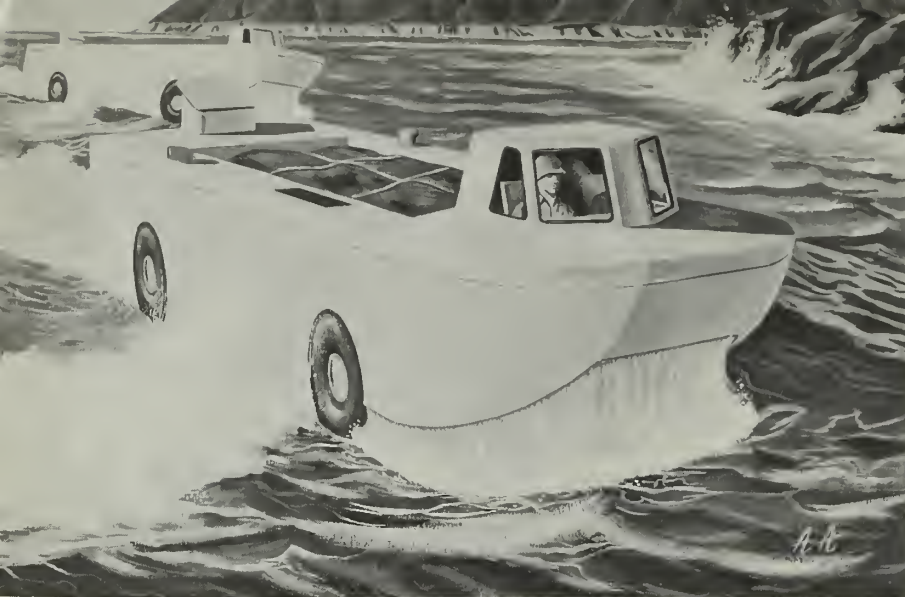
- *Water curtain*—About the only extra equipment you'll need this time, besides that which you already

- *Ram wing*—Your wash tub has outlived its usefulness now. For this one you'll have to draw on your experience as a model airplane builder—it's nothing more than a flying wing. It's not a new concept. A Finnish engineer, T. J. Kaario, suggested it way back in the early thirties. This type machine looks like a wing of an airplane and even uses a similar principle of flight. When this particular hydroskimmer increases speed, less power is needed to keep it aloft because of the ram effect of air entering the front of the machine.

THE NAVY IS NOT SURE which of these configurations is the best.

THE WATER WORKS—Sectional view shows how hydroskimming functions.





POSSIBLE *Hydrostreak*-type amphibious vehicles would use wheels on land.

Maybe one will prove better for certain applications and another for a different job. Right now it doesn't look as though you'll serve aboard one during this hitch.

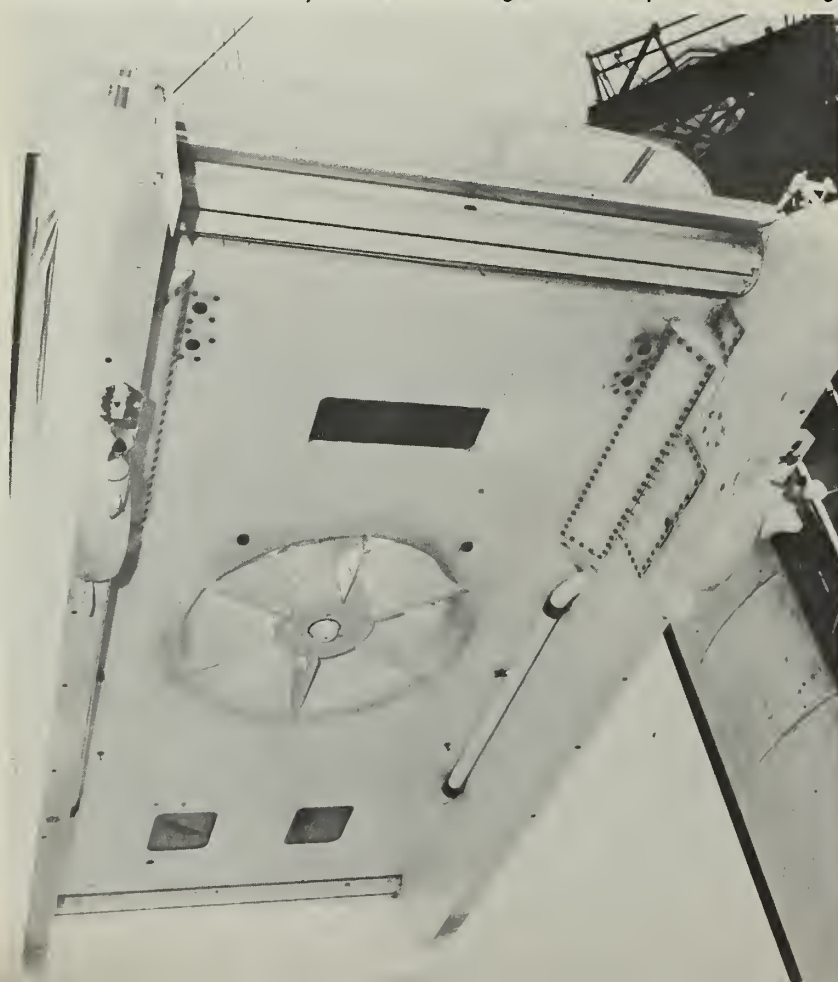
Before larger skimmers can be built the Navy wants more performance data. Navy engineers have been testing small scale models at the David Taylor Model Basin for several years now. Besides that, certain

civilian companies are developing experimental craft for the Navy.

Before the end of the year, the Bureau of Ships plans to have at least four hydroskimmers under test. These craft will be about 20 feet long and both air and water walls will be used.

The Navy has already tested the *Hydrostreak*, which has water walls fore and aft and skegs on the sides.

LOOKING UP—Bottom of *Hydrostreak* shows gear that keeps craft skimming.



This type of vehicle is limited to operations over water.

Another water wall vehicle has also been delivered to the Navy. It has water on all sides, however, not just fore and aft. This vehicle will be capable of 15 knots or more.

An aircraft company is also producing a hydroskimmer for BuShips. It has air fore and aft with side skegs. Vehicles of this type have a much higher speed potential than the water wall types.

A fourth craft is being concurrently tested by the bureaus of Weapons and Ships. It will be a diamond-shaped, full-peripheral air machine.

BESIDES THESE VEHICLES which are undergoing Navy tests, Bureau of Ships officials are interested in several other air-supported craft. One such craft is being tested by the U.S. Marine Corps and several by the U.S. Army and Air Force. One successful hydroskimmer is the already-mentioned *Hovercraft*.

Another craft which may provide useful data not only has side skegs, but also has flaps forward and aft which move up or down as they are hit by waves. This is a fairly new field of research, and not too much apparently is known of it yet. A hybrid, it does not strictly qualify as a hydroskimmer—its inventor calls it a "lubricated craft."

Hydroskimmers have a place in the future U.S. Navy. Current development plans in the Bureau of Ships call for a craft about 40 feet in diameter which would be a large scale model of an oceangoing craft. In a later building program it is expected that an experimental type will be built of a size large enough to demonstrate ASW capacity in the open ocean.

Although the Navy knows the skimmer theory works, it's hard to determine just how larger ones will operate. Engineers believe that as they increase in size, they will also increase in efficiency. This leaves one to speculate that future aircraft carriers or large ocean-going transports may be hydroskimmers. Although laymen may question whether cargo can be stored in this type craft, the experts maintain that when they reach operational size, there will be room for more cargo than the craft can lift.

It is hoped that operators of small amphibious type hydroskimmers will be able to handle their craft with

little more training than they now need to operate present day landing craft. The vehicles will probably be harder to maintain and repair than today's amphibious type craft, but less difficult to repair than an airplane.

AIR-SUPPORTED VEHICLES are not perfect. For one thing, they are noisy. And possibly the biggest problem is the high velocity downwash. In other words they kick up a lot of dust on land and a heavy mist at sea. This downwash problem decreases, however, when the vehicle operates about 30 mph or faster—at which speeds they outrun the fog or dust.

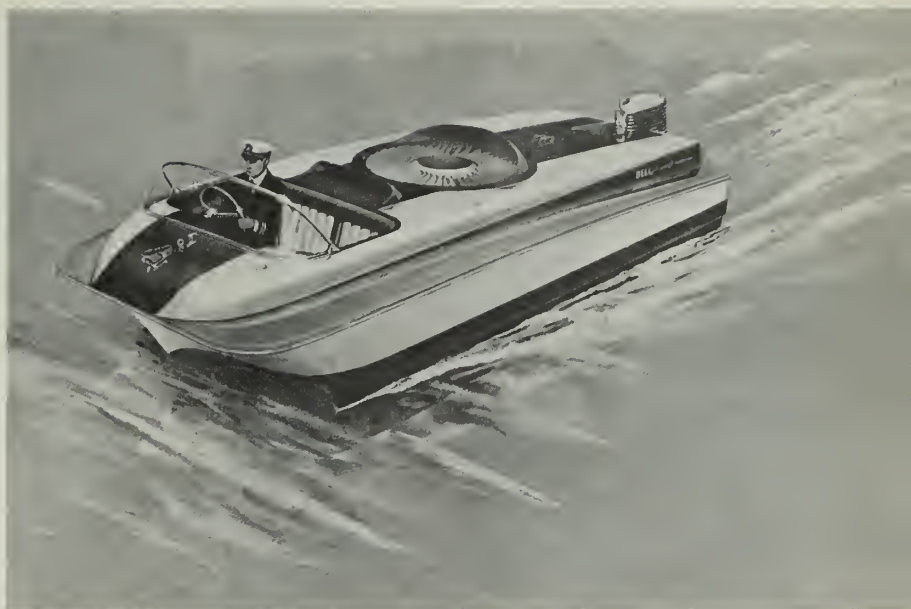
The mist effect will make it almost impossible to load these craft while they hover over water. It will be necessary either to land them on the water or hover them over a hard surface. These are matters that will be further explored after hydroskimmers become operational.

Probably one of the most difficult maneuvers to be learned by a hydroskimmer operator (or driver or pilot, whichever he will be called) will be to turn or to stop. Its stopping characteristics will be much like an airplane. You don't stop an airplane in the air, and hydroskimmers will be much the same. At present, it appears that the only way to stop them is to reverse propulsion, hover, and then set them down.

When it comes to turning corners, there is no great problem except the operator must use a greater area in which to turn (mechanically, the vehicle will be turned by changing the angle of the air jets). Besides that, he'll have to make up his mind to turn before he gets close to an obstruction—there can be no last minute decisions.

HYDROSKIMMERS ARE POTENTIALLY faster than any other type Navy ship now in existence or even in the dream stage. Peripheral air seems especially suited to high speeds because it will be hampered only by wind resistance. Water wall vehicles or vehicles with side skegs will have a certain amount of drag in the water and will therefore be unable to obtain the high speeds that will be possible with the peripheral air machines.

Another area of speculation regarding hydroskimmers is their seaworthiness. Maybe this will determine the type the Navy will decide



NEW MODEL—Sketch shows hydroskimmer to be delivered to the Navy.

to use. The vehicles with side skegs may be more seaworthy, say, than a peripheral air machine. Yet the one with skegs would be limited to lower speeds because of the water drag. They might also be restricted to the water.

The reaction of GEMs in at-sea conditions is another question mark in their development. About the only concrete proof of their ability was shown last year when the British *Hovercraft* crossed the English Channel. That craft flew only about a foot above the surface, yet it is easily maneuvered through four foot swells

at speeds up to 30 knots. Ocean-going hydroskimmers are expected to fly about 10 feet or more above the surface.

But what happens if you lose power while flying at say, 50 knots? Will it glide to a stop or will it crash immediately? And if it crashes, will the lightly constructed machine take the beating? These are in an area of speculation and until more research is done and eventually larger hydroskimmers are built, they will remain in that area. The Navy will find the answers, but it may take a while.

—Erwin A. Sharp, JOC, USN.

WATER WALL at stern and bow keeps Navy's skimmer riding on air cushion.





HOME PORT—A. K. Loudermilk, BU1, and N. F. Barnes, BUL3, finish exhibit. Rt: BU mans saw in center's shop.

Let's Get the Show on

ONE OF THE DARNDDEST SIGHTS seen by Navymen on leave may be found at almost any state fair. Hundreds of miles from a major Navy activity—say somewhere in Alabama or Utah—the sailor will be walking around the fair grounds when something catches his eye. Coming closer, he sees that it is a Navy exhibit.

Manned by fellow Navymen, the exhibit might be a full-scale replica of the *Polaris* or *Talos* missile. Or it might be a "walk-thru" van with a display of modern seapower.

These exhibits, and they take several forms, are home-ported at a famous building in Arlington, Va. (It housed the Navy's first radio station, "Radio Arlington," from 1913 to 1956.) It is now the headquarters building of the Navy Exhibit Center.

On duty here are some 25 enlisted men, chiefly PO2s and above, and three officers, one of whom is the OIC. By rating, most of the enlisted men are BUs and EOs. The civilian force numbers 16.

It's a busy place. Right now an EO1 and an SN are giving the final

checks to their seven tons of display material, soon to be trailer-hauled to upstate New York. A BU1 and BU2 are turning to with civilian craftsmen in the construction shop, shaping up a new exhibit on anti-submarine warfare. In the design section a DM2 inks in the final details on a drawing for an exhibit that shows Navy engineering standards.

In such a manner the center puts its assigned mission into work-day action. It is a mission that requires the center to "facilitate through the medium of exhibits and other visual

ON 'CRUISE'—Story of HASP is studied by county fair visitors. Rt: Talos and exhibit vans stand in midway.





PLANS drawn by F. L. Nosek, DM3.

the Road

means" the Navy's programs in five major areas. Two of these areas are recruitment and personnel procurement, and internal training and indoctrination. The other areas are of a somewhat different nature, being (1) property and material acquisition and disposal, (2) technical, scientific, research, development, procurement and production, and (3) incentives to industry.

These last three areas give the center a close tie-in with the Office of Naval Material. Fact is, the Chief of Naval Material has management control of the center. (The Chief of Information has technical control.)

Some of the center's most interesting exhibits are of the show-in-dustry type. Here are some typical events in which the exhibit center was represented:

- Northeastern States Exposition of Industrial Progress, Portland, Me.
- Midwestern Business Opportunities Show, Fort Wayne, Ind.
- Southeastern Exposition of Business Opportunities, Birmingham, Ala.
- Navy Industry Days Show, Chattanooga, Tenn.

On these occasions such persons as the manager of a heavy-metals plant and a foreman in a sub-contracts plant get a close look at the Navy's hardware needs. They learn about its standards of machinery



POPULAR POLARIS exhibit was viewed by some 600,000 at Minnesota Fair.

tolerances and see how their plant might aid in the national defense effort. Depending on which Navy Department bureau or office (BuWeps, BuSandA, Office of Naval Material, BuDocks, etc.) is representing the Navy there, an official

from that bureau or office will be standing by to offer advice on technical matters and on procurement procedures.

THE BEGINNINGS of the present Navy Exhibit Center relate to the above

SETTING 'SAIL'—W. C. Shawn, EON2, gets instruction from OINC of Exhibit Center, LCDR B. H. Pester, USN, as he takes exhibit on the road on flat bed.





THE NAVY STORY—Skilled hands at Exhibit Center create and build many types of exhibits for the Navy. Here, an exhibit for BuWeps is assembled.

show-industry pattern. Back in 1938 the nation was in a preparedness program in the troubled days preceding World War II. Most of the Navy's armament manufacturing facilities were at the Naval Gun Factory, Washington, D.C., but with the expanding program, commercial plants would be needed to lend a hand. Recognizing that plant management would require help in learning about the Navy's needs and standards, the Navy outfitted several motor trucks with samples of ordnance parts and sub-assemblies. Manned by Navy design and production experts and by contract negotiators, the trucks then headed for the defense plants-to-be.

Later, during the war, other vans were rigged out to support recruiting drives, war bond drives, and Navy Day observances. In 1947 a caravan of 11 vehicles—mostly vans with built-in exhibits—began a nation-wide series of tours.

The exhibit program was already becoming pretty much the Navy's showcase to a large part of the country. So in 1950 an "Exhibit Program throughout the Naval Establishment" was set up, with the Chief of Information as coordinator. Eight years later the Naval Exhibit Center came into being.

One of the items inherited by the center was the Combat Art Section. Here is a collection of 2744 original pieces of art—oil paintings, water colors, charcoal drawings, ink sketches and pastels. Covering the period through two wars back to 1941, this collection shows the work of artists

within the naval service. The subject matter is broad: Combat scenes, crewmen off duty, portraits, ships and aircraft, and general scenes of life-in-the-Navy.

COMBAT ART is displayed in two main ways. First is "Operation Palette." Twice a year a CPO starts out in a large semi trailer van with some 120 pieces of art. He tours a specific area of the country and displays the art at such places as libraries, art galleries, school auditoriums,

Requests for Navy Exhibits

Military and civilian event sponsors who desire Navy Exhibit participation should submit their request to the Chief of Information, Department of the Navy, Washington 25, D.C. A DOD "Request for Armed Forces Exhibits" questionnaire should accompany the request. Exhibits are normally committed on a basis of first-come-first-served, and requests for exhibits should be made three to five months in advance of the date they are required.

The cost of transporting exhibits and, if applicable, the per diem for personnel involved, is borne by the event sponsor—unless DOD rules otherwise. Further information concerning exhibit requests may be found in Chapt. 13, *Public Information Manual* (NavExos P-1035.)

hotel and bank lobbies, and even department stores. Each year about 300 shows are given with some 30 cities covered. Operation Palette has been viewed by an estimated 40 million people, both Stateside and abroad.

Combat art is also shown in exhibitions sponsored by societies and organizations. Such exhibitions usually run from one to three months. From 25 to 500 pieces are displayed.

The Navy Exhibit Center does more than merely show exhibits. It also has to design exhibits and see that the design takes form in a finished product.

First there is the idea. A commander in BuWeps, a civilian expert in BuSandA, a POI on recruiting duty, or an official of the center—any one of these, as an example, might see the need for a specific exhibit. After evaluations and conferences, the idea, if OKed, takes form in the Center's design section, finally appearing as a detailed drawing.

Construction of the exhibit is the next step. Most are built in the Center's construction shop. Some, however, are farmed out to commercial firms. It depends on the time and money available and the amount of research needed.

Final step is a realistic, three-dimensional exhibit ready for showing. Any exhibit must be easily transportable and must be "re-showable."

Exhibits are of two main types. One is the mobile type mentioned earlier. A walk-thru van with a sea-power display or a *Talos* missile replica on a flat bed trailer are typical of this type.

The other is the "static" type, illustrated here. These are shown inside buildings and can be set up in short order. A static exhibit usually consists of several flat or curved panels on which are both lettering and artwork, such as drawings, photographs and paintings.

Special, and recently developed, forms of static exhibit are the Center's "do it yourself" exhibits. Lightweight and portable, they can be assembled rapidly and disassembled even faster. Naval District Commandants and Directors of Recruiting Areas have these kits, complete with scale drawings and assembly instructions—and also have the responsibility for having them constructed and displayed within their areas.

Like mobile exhibits, static exhibits are also seen at state fairs. At indoor shows, though, they are more likely to show up at such events as conventions of scientific or technical associations.

A fleet of 10 five-ton and 10-ton trucks keeps busy in hauling static exhibits from place to place, which gives some idea of the number and variety of the Center's static exhibits.

Just about one-half of the Center's work is in support of Navy recruiting, with the mobile exhibits performing the major portion. Fact is, the NEC-men on the road call recruiters their best friends.

SAY YOU'VE JUST LEFT a five-day stand at the North Dakota State Fair at Bismarck. You're driving a 10-ton "cab-over" truck-tractor with a 40-foot lowboy trailer in tow. Atop the lowboy is a full scale *Talos*. It's a 387-mile haul to your next stand, the "Frontier Days" show at Cheyenne, Wyo.

You're wheeling along a few miles outside Cheyenne when a grey sedan marked "Navy Recruiting" pulls alongside. You get the signal to follow it. The recruiters know the show's location; you don't. So you're glad to have them as a guide. Later, while on the Frontier Days show grounds, they help you spot your lowboy, introduce you to some of the local officials and brief you on the details. They'll have their own recruiting booth set up by your exhibit.

Chances are there will be no more than two NEC-men with the exhibit, while there will be several recruiters. With visiting by the public starting at about 0900 or 1000 and ending 11 to 14 hours later, and with the need for the exhibit to be kept in tip-top shape, you'll be glad to have their help, both in watch-standing and in keeping the exhibit looking sharp.

On the road nearly eight months each year are four mobile units. Each departs from its home base at Arlington and, upon returning there, gets refurbished and up-dated as necessary. This year from early August to late October (the Fall circuit) the four units covered 21,300 miles and made a stand of about five or six days at 38 locations in 30 different states.

Unit One is a dual affair. First is a full-scale replica of the *Polaris* missile. Mounted on a flat bed trailer, it gears itself up to a vertical

position while on show. The second part is formed of two semi-trailer vans, each 28 feet in length. On the circus or fair grounds, the "walk-thru" vans are lined up tandem fashion and joined by a gangway.

Navy Seapower is the theme. Exhibits are mounted along each side of offset aisles, with the "deep" displays (such as models of cruisers, submarines and aircraft) on the deep side and the pictorial and graphic displays on the shallow side. Tape recorders tell the viewers what it's all about: Top attendance for one day: 23,026 viewers.

Unit Two is also a two-part unit. A full-scale *Talos* replica mounted on a flat bed trailer is the first part. The second part is a 24-foot trailer. The walk-thru viewers here learn about Navy "Undersea Operations."

Unit Three carries a *Talos* replica on a lowboy trailer. Unit Four is a former Navy passenger bus. The previous interior has been removed; and now the viewers learn about "Today's Navy." Where the windows of the bus had been, are now shown color photos in "shadow boxes." The bus has a built-in, 115-volt generator for self-lighting purposes.

Blue lettering on a glossy white background is the color scheme of the vans and buses. Missiles are a glossy red and white. Though highways and fair grounds make for a dusty combination, NEC-men make it a point of pride to keep their exhibits looking in four-oh shape. Scrub buckets, swabs, paint rags and soap powder are part of the regular traveling gear.

Occasionally NEC-men at a fair will learn that fair officials are considering their exhibit as an entry in the Public Affairs Exhibit category. This means the exhibit competes not only with city and regional civic ex-



BOXED—Packing crate for shipping *Polaris* exhibit is made in Navy Exhibit Center's woodworking shop.

hibits but also with exhibits from the other Armed Services. And from time to time the Blue Ribbon is awarded to the Navy Exhibit Center's entry.

In all, men at the Center consider theirs a good duty—and, above all, as interesting duty. The missile trailer drivers are quick to point out, however, that they are subject to a rather unique road hazard. It seems that on-coming motorists catching sight of the large mounted missiles will sometimes forget what they are doing and let their automobile drift over into the NEC-man's lane.

Bill Miller, JOCM, USN.

Photos by G. Russell, PH2, USN.

GOOD SHOW—Van of Navy combat art starts on New England area trip.



A Pool of Specialists—

GO AHEAD. Name any Navy "specialty" you can think of.

Chances are you'll be able to find a Naval Reserve unit which specializes in training specialists in that particular specialty.

As this is being written, some 25,000 Reserve officers are taking part in more than a score of programs in the Specialist Reserve. Groups of enlisted Reservists are also participating in the Specialist Reserve but the majority of those participating are in Organized drill units.

Formerly designated as volunteer or nonpay programs, the specialist units cover a wide field of activity—ranging from BuShips to the Supply Corps, Censorship to Petroleum, CEC to Politico-Military Affairs. The Specialist Reserve also includes the relatively new—and extremely popular—Naval Reserve Officers School (NROS) program.

Some of these programs emphasize the planning or administrative level. Others are adapted to the unique skills of such Navy specialists as maritime lawyers, research personnel. One—the Composite Program—takes care of the Reservist who can find no appropriate specialist unit in his area. Some Composite units train Reservists with similar specialties; others provide general training.

The Chief of Naval Personnel is responsible for establishing Specialist units and for coordinating training, with the guidance and assistance of certain bureaus and offices which have cognizance over a particular

area of training. The Commander, Naval Reserve Training Command, supervises training and conducts regular inspections.

ALL SPECIALIST RESERVE PROGRAMS—except the NROS—are authorized 24 drills annually. Additional drills may be scheduled, with the approval of the district commandant, if the unit wishes to expand its training beyond that offered through the regular curriculum or if the unit wishes to undertake a special project or study.

Members of Specialist units do not receive pay for their participation. (However, pay billets are authorized for the CO and certain staff members as compensation for their performance of administrative and training duties for their units.)

Active duty for training (ACDUTRA) with pay is available to a limited number of Ready Reservists in the Specialist programs. Other Reservists may be authorized ACDUTRA without pay.

Most programs are open to all qualified Reservists in nonpay status, officer and enlisted.

Here is a rundown of the Specialist Reserve programs today. As you can see, there is virtually no limit to the scope of training available to volunteer Reservists.

BuShips

Harley X. Wilson is a diesel engineer. He's also a lieutenant commander in the Naval Reserve. Twice a month he meets with a group of

Reserve officers ranging from physicists and mathematicians to salvage engineers, naval architects and firefighting experts. All are members of a BuShips Company.

In the event of an emergency, these men would be available to staff activities afloat and ashore which come under BuShips cognizance.

Meanwhile, during their regular drills the Reservists work out engineering problems, study firefighting techniques, ship repair, and the activation of ships in the mothball Fleets.

BuShips Companies have billets for officers who qualify in a number of engineering fields and in specialties such as those mentioned above. Officers with other experience or professional background—and enlisted men in pay grades E-3 and above—may affiliate, with the approval of their commandant.

Censorship

This is a dual program—with units in the Shore Establishment Component of the Selected Reserve and in the Specialist Reserve.

Officer and enlisted personnel who are not specially trained for shipboard duty but who have had experience, education or training in censorship are eligible to take part in this program.

Billets are also available to over-age personnel, limited service personnel and those not physically qualified for sea duty. Women officers may fill billets as translators, linguists, administrative assistants and censors. Enlisted men and women may join

FROM SHIPYARDS TO MISSILES, Specialist Reserve units are keeping Naval Reservists in many fields ready for action.



On Tap

the program, within certain rating limitations.

The Censorship Program is sponsored by the Director of Naval Intelligence.

Chaplains

Many of the "padres in action" during World War II and the Korean conflict were Reserve chaplains. For example, there's LCDR Charles R. Stuart, CHC, USNR, who joined the Naval Reserve before he completed his theological training. When he was ordained, he accepted an appointment as LTJG. He volunteered for active duty during the Korean fighting. Now he's a member of a Chaplain Company where he drills regularly with other chaplains; his annual ACDUTRA is spent in on-the-job training at various naval district activities.

About a year and a half ago, the Navy distributed a guidebook for Reserve chaplains which was itself prepared by Reserve chaplains. Two years of research went into the first draft, developed by USNR chaplains in workshop seminars at Great Lakes and San Diego. Ultimately, a team of chaplains was ordered to BuPers to complete the project.

There are other assignments for Reserve chaplains — some are pleasant, such as providing a religious note for a patriotic ceremony; others are not so pleasant, such as making a "casualty call" on the bereaved family of a Navyman.

Chaplain Companies may be formed wherever there are enough in-



IN AN EMERGENCY Reservists in Naval Material can handle supply problems.

terested and qualified Reservists to justify the unit.

Enlisted Reservists in the personnel man rating (chaplain's assistant) are eligible to join Chaplain Companies. This gives William Bridges, PN3, USNR, a chance to play the organ at Sunday services; Bridges also has opportunities to show his artistic and clerical talents by designing bulletins for services, helping out with administrative chores and the like.

Civil Engineer Corps

Harry Leroy, Jr., UT3, USNR, is an apprentice plumber. He's a mem-

ber of a CEC Company, and one of thousands of Reservists who apply their civilian training to their Reserve assignment.

Civil Engineer Companies are the "volunteer" counterparts of Construction Battalion Divisions of the Selected Reserve. They provide training for CEC officers, WOs and enlisted Seabees. Instruction covers all aspects of civil engineering as it applies to the Navy—including logistics, pontoon operations, camp sewage, concrete and construction materials, dry-docks, septic tanks, hygiene measures, staging operations, and so on.

IN THE KNOW—Specialist Reserve trains chaplains and helpers. Rt: Reserve intelligence officers hold discussion.



Officers are practicing, professional engineers. WO and enlisted members are proficient in one or more divisions of construction or related trades.

Communications

This is a dual program, with pay units in the Shore Establishment Component of the Selected Reserve and nonpay units in the Specialist Reserve.

When electronics training was reorganized last year, Electronics divisions became part of the Surface Program of the Selected Reserve's Active Fleet Augmentation Component. (See ALL HANDS, October 1960, page 20.)

This action limited the source of experienced and qualified Reservists who would be needed at shore-based communications activities in the event of mobilization. Therefore, a Naval Reserve Communications Program was established, with an initial authorization of 12 divisions in the Selected Reserve. At the same time, all existing Electronics companies and platoons were redesignated as Naval Reserve Communications Companies of the Specialist Reserve.

Membership includes officer and enlisted personnel, many of whom are "ham" radio operators.

Detailed instructions governing this program are still in preparation.

Composite Companies

If your civilian specialty is supervising the threading of right-handed

bolts into left-handed monkey wrenches, chances are the CEC or Seabee programs would be your first choices when you cast about for a Reserve unit to join. But what if there are no CEC or Seabee outfits within range of your long glass?

Try the "Composite" program. Composite units are especially designed to answer the needs of areas where other specialist units have not been established. They are particularly effective in smaller cities, where there are not enough Reservists in a given field to support a specialized type of unit.

Membership of a Composite unit may include officers of any rank and classification and enlisted men of any rating in pay grades above E-1. However, Composite Companies may also be composed exclusively of officers of the same or related technical specialty for which specialized Naval Reserve programs have not been established.

Training is of a general nature—providing instruction in armed forces policy, *Navy Regulations*, general components of the Navy, history, current events, tropical and arctic warfare and so on, all in accordance with BuPers curricula.

Dental Corps

There's more to dentistry than knowing where to stick the needle before pulling the bicuspid or which filling material to stuff into a cavity.

Reserve Dental Corps officers and warrant officers and enlisted DTs and DN's can keep up to date on service dentistry by joining a Dental Corps unit. Everything from problems of the salivary gland to the construction of dentures is covered.

Intelligence

Here is another dual program—with units in the Shore Establishment Component of the Selected Reserve and in the Specialist Reserve.

Training of the "cloak and dagger" personnel includes the field of investigation, preparation of special studies, research and general administrative activities. Intelligence officers must keep up to date on world affairs as part of their Reserve training. Projects include preparing exhaustive intelligence reports for hypothetical attacks on the "enemy." ACDUTRA may be ashore or afloat.

Officers with designators 1635, 1105, 1315, or 1355 may be eligible for membership in Intelligence Companies. Enlisted personnel in pay grades E-4 through E-7, in DM, TE, PH, YN and LI ratings, are also eligible.

Lawyers

No need to consult a "sea lawyer" when you can find a full-fledged attorney almost in your midst.

This all-officer program trains qualified Reservists in military law. Companies are composed of Reserve officers—male and female—who are members of the bar of a federal court or the highest court of a state.

The Reserve lawyers cover such fields as maritime law, contract law and, of course, international law.

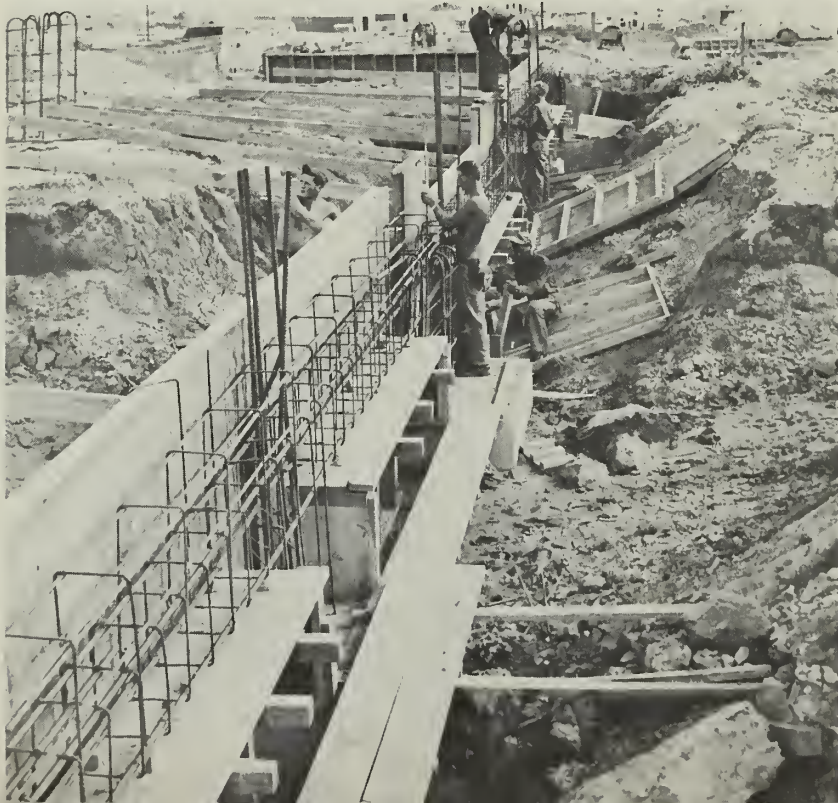
Medics

Medical technology, like naval technology, is advancing continuously. And you'll find Reservists of the Medical Department keeping pace with the changes.

Naval Reserve Medical Companies train Medical, Medical Service, Nurse, and Hospital Corps personnel who would be available for mobilization in an emergency. Eligible Reservists include officers with designators 1945 (Medical), 2105, 2305, 2905, 8175 and 8185, and enlisted personnel of the Hospital Corps.

In localities where a Naval Reserve Medical Company does not exist, Reserve medical personnel may request association with other programs. For example, Naval Reserve medical officers are sometimes attached to Marine Reserve units.

CIVILIAN TRAINING is applied to the NR by many belonging to Civil Engineer Corps, the 'volunteer' counterpart of the Seabees of the Selected Reserve.



Merchant Marine

If you are looking for an exception to the traditional concept of Naval Reservists — part-time sailors drilling regularly at their dry-land training center—you need look no more after you spot the Merchant Marine Companies. These units are strictly sea-going and do not train at shore activities.

Merchant Marine Companies are authorized to train in merchant ships which are able to support such training units. Line and supply officers serving in merchant ships are eligible for the program. There are no billets for enlisted Reservists.

When these officers in the merchant fleet come ashore permanently, they are no longer eligible for the Merchant Marine program; however, they may affiliate with the MSTS program, or join a Naval Reserve Officers School.

Military Sea Transportation Service

MSTS is another dual program; there are MSTS divisions in the Fleet Support Activity Component of the Selected Reserve and MSTS Companies as a program of the Specialist Reserve.

Officers experienced in transportation and shipping are eligible for enrollment; women officers with 1105 and 3105 designators are also eligible. Each MSTS company is also authorized three YNTC billets for administrative purposes.

Naval Material

Ever have to write out a requisition for some gear? There's lots more to this business of Navy material than the stocking of goods in a warehouse, the paperwork involved in getting it delivered to the users, transportation and whatnot.

Under the sponsorship of the Office of Naval Material, Reserve officers who have educational or experience backgrounds in business administration, production management, engineering and allied fields, drill in Naval Material Companies. Their training qualifies them to administer, supervise and operate ONM offices in Washington and ONM field sections. Training covers procurement and disposal of material, planning, quality control, industrial security, development contract administration, contract termination, property disposal, industrial mobilization, production, and the like.

There are no billets for enlisted Reservists in this training program.



PETROL PROBLEMS are the meat of officers in the Petroleum program. Training consists of lectures, films and instruction by authorities in this field.

Naval Research

Reservists with a scientific bent—and the necessary technical qualifications — may affiliate with Naval Research Companies.

Membership covers three general areas: *Research*—Reservists who are qualified and currently engaged in the conduct or administration of scientific research; *Special Devices*—aeronautical, mechanical, electronic, and electrical engineers with knowledge of the application of their field to synthetic training devices (this category also includes statisticians and educators in technical fields); *Contract Administration and Patent Law* — lawyers with experience in either field, individuals with experience in government research contract administration, patent, trademark, or copyright matters.

Enlisted Reservists who are potential officers may affiliate; Reservists with special devices ratings may also take part in the program.

Naval Security Group

This is another dual program, with one section as part of the Shore Establishment Component of the Selected Reserve and the other a part of the Specialist Reserve.

Officers with designators 1105, 1615 and 7645 are eligible to participate. Enlisted Reservists may fill administrative billets only.

The program is under the cognizance of the Director of Naval Communications.

Ordinance

Reservists enrolled in the Ord-

nance program are on their toes keeping pace with the rapidly changing technology in their field.

Members of this program study guided missiles and all types of ordnance equipment, explosives, arms and armament.

Training includes such subjects as ammunition and explosives, materials and handling, projectiles, fire control, gun mounts and missile launchers, underwater ordnance, aviation ordnance, jet propulsion and countermeasures.

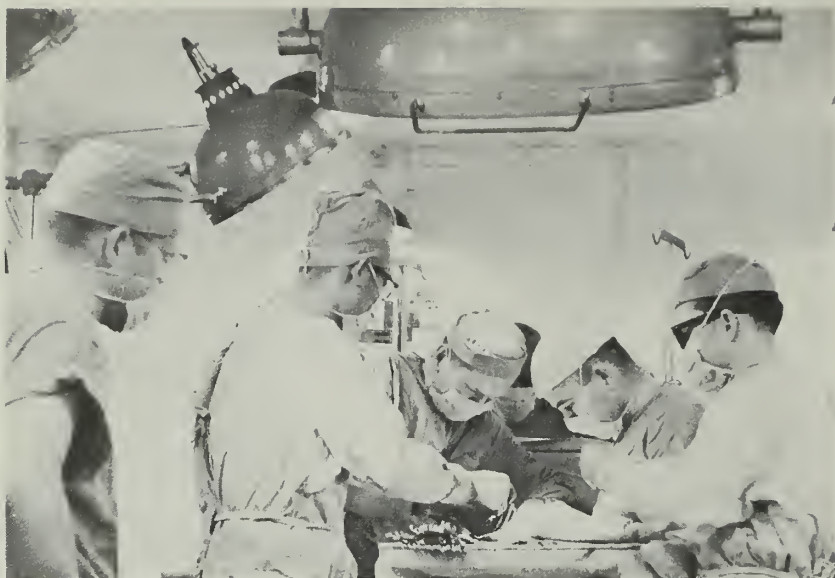
Officers with designators 1455, 7215, 7235, 7245 and 7335 and Navy Qualification Codes in the 949XXX-959XXX series are eligible for enrollment. However, commanders may also authorize the affiliation of officers with other qualification codes and designators, and enlisted Reservists in pay grade E-3 and above.

Upon mobilization, members trained in Ordnance Companies would be assigned to duties with the Ordnance establishment, or in ordnance components of other naval activities and commands.

Petroleum

You don't need to own a Texas oil well to enroll in the Petroleum program—but working on one or even owning one might give you the necessary experience.

Since Reserve officers with experience in the petroleum field are not confined to any one officer designator code, officers associated with petroleum or allied fields, regardless of



RESERVISTS OF THE MEDICAL Department are keeping up with matters in Military medicine through training with Naval Reserve Medical Companies.

designator, may enroll. Enlisted Reservists in pay grade E-3 and above may fill administrative billets in Petroleum Companies.

Training consists of lectures, films and instruction by men prominent in military and industrial fuel activities.

Politico-Military Affairs

Current events, geopolitics and the promotion of better understanding between nations and national groups are studied by Reservists taking part in this program.

Officers whose experience and interest qualify them as specialists in international affairs make up the bulk of the membership. However, enlisted Reservists holding admin-

istrative ratings in pay grade E-3 and above may also enroll.

Public Relations

Ownership of a gray flannel suit is not a prerequisite for joining a Public Relations unit, but knowledge in some area of public relations is.

This program provides qualified public information specialists for mobilization and also assists district commandants in their public information programs.

Training includes lectures, seminars, and instruction in current planning and policies of armed forces public relations.

Membership consists of officers and enlisted personnel, male and

female. There are no rank restrictions for officers; enlisted Reservists in pay grades E-1 and E-2 are not eligible, however.

Reservists who qualify as specialists in the following fields may join: Public relations, advertising, reporting, editing, free-lance writing, photography, broadcasting, telecasting, publishing and motion pictures.

Supply Corps

"Service to the Fleet" has long been the motto of the Supply Corps, and the Corps is striving constantly to improve this service.

Reservists enrolled in the Supply Corps program train for possible mobilization by keeping abreast of the operation and products of the industries that serve the Navy.

Training aids include films and brochures describing the raw materials and finished products purchased by the Navy. Intensive "on-the-job" experience is provided at Supply Corps activities.

Supply Corps Companies are composed of officers of the Supply Corps, including Waves. (No billets for enlisted Reservists in this specialty.)

Naval Reserve Officers School

Although not, strictly speaking, a "specialist" program, the NROS program is a part of the Specialist Reserve.

The mission of this program is to broaden, by means of progressive guided study, the professional knowledge of inactive Reserve officers. Courses are offered which will expand and intensify basic naval professional knowledge; other courses provide limited technical and specialist training for officers in operational billets; and still others provide broad, general professional education essential to the exercise of command and staff functions.

Any inactive officer not on the Inactive Status List is eligible to take part in NROS training. Units meet one night a week for 40 weeks per year for a full-year course, or 20 weeks for a half-year course.

There are now 103 NROS units in operation. Instruction is offered in more than 40 subjects of naval interest, including line, technical, orientation to command, and command and staff courses.

That's it. Quite a program—and it's made up of people volunteering spare time to keep themselves in training for the Navy, just in case there may be a need for them.



COMPOSITE SPECIALTY units solve the problem of those who cannot find a Specialist unit of their particular Navy skill in the area where they live.



Notes of Good Will

"Welcome. When the East and West twain to meet spiritually and mentally, your music gave me strength and comfort. I, as citizen of Takamatsu, take the liberty of sending genuine thanks to you at this time for your music."

This note written by a Japanese worker was typical of the many words of appreciation received for the musical notes played by the Commander Seventh Fleet Band during a concert tour of six Japanese cities.

Traveling by bus, jeep, automobile, cable car, truck and ferry boat as well as their own ship, *uss Saint Paul* (CA 73), the 18-member band covered some 900 miles through southern Japanese cities. The musicians played for audiences ranging from small groups of 200 to a crowd of 75,000 baseball fans.

Clockwise from top: (1) Seventh Fleet band performs for 75,000 between innings and games at baseball park in Osaka. (2) D. L. Muir, MU3, USN, joins in with high school band during parade and concert program at Himeji. (3) U.S. Navymen play for Japanese sailors and their families. (4) Navy band men join in the fun, learning native dance at reception in their honor. (5) Crowd at amusement park gets big kick out of band concert. (6) Navymen have fun visiting zoo while on good will tour. (7) Cameras go into action as band members visit Osaka castle built in 1584.

—Bob Lamber, JO2, USN.





MERRY

ONCE AGAIN it is the time of year when people the world over take time out from their regular routine to celebrate the Christmas holidays. Navymen are no exception, for whether on ship or shore, overseas or stateside, they'll be joining in the Yuletide celebration.

Colorful lights will decorate Navy ships. Christmas trees will spring forth from steel decks and appear at shore stations. Toylands will open for the small fry and, of course, Santa Claus will make the rounds. Navy chaplains will provide the religious ceremonies for Navymen and their





CHRISTMAS

families and, in keeping with the holiday spirit, the less fortunate in the United States and foreign lands will not be forgotten.

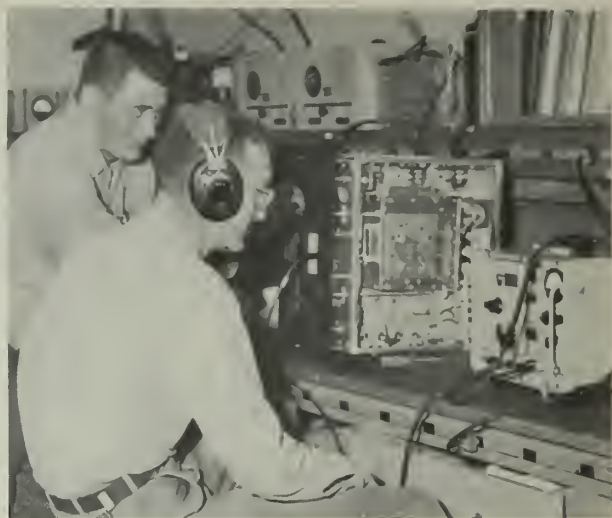
A small sample of the Navy's big holiday spirit is shown on these two pages. *Clockwise from upper left:* (1) Greeting on *uss Midway* (CVA 41) speaks for itself. (2) Santa appears by way of helicopter at many installations to greet Navy children. (3) No "dreaming" of a white Christmas for the Navymen in many frigid areas. (4) *uss Northampton* (CLC 1) decks out her large forward mast to help spread the holiday spirit. (5)

Decorated whirlybird becomes sleighbird for Santa greeting children in the NAS Lakehurst, N. J., area. (6) *uss Willis A. Lee* (DL 4) and other well-decorated ships light up the area at Newport Naval Base destroyer piers. (7) The religious aspects of the holidays are not forgotten by Navymen. (8) and (9) Navymen bring a brighter Christmas to children in many parts of the world. Here, destroyermen of *uss Prairie* (AD 15) hold party for Japanese orphans and (above) orphans from Nice, France are feted on board *uss Des Moines* (CA 134).





HIGH—ETs inspect antennas atop building. Below: H. D. Howland, ETNSN, and J. R. Moody, ETNSN, at work.



ET'S, C. R. Rowley and R. M. Howes, align receiver.

Electronics

VOICE COMMUNICATIONS between pilot, tower and ground control approach operators are almost as indispensable in modern aviation as wings on planes.

The ground electronics section of the Operations Department at Miramar, NAS, near San Diego, Calif., is responsible in this field of communications at one of the Navy's largest air stations.

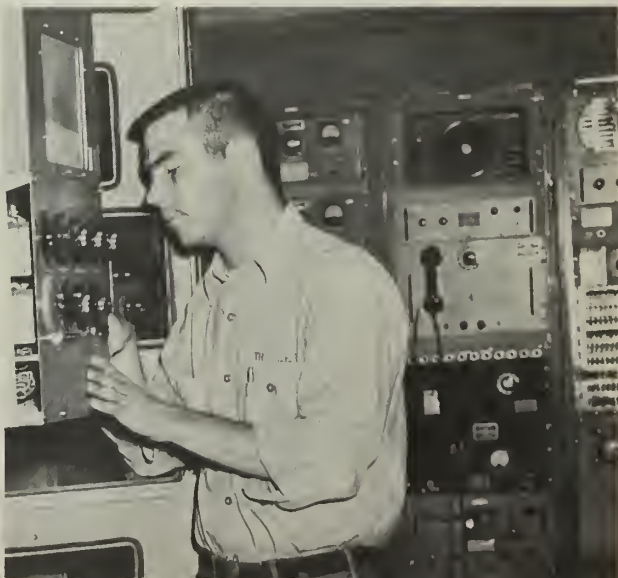
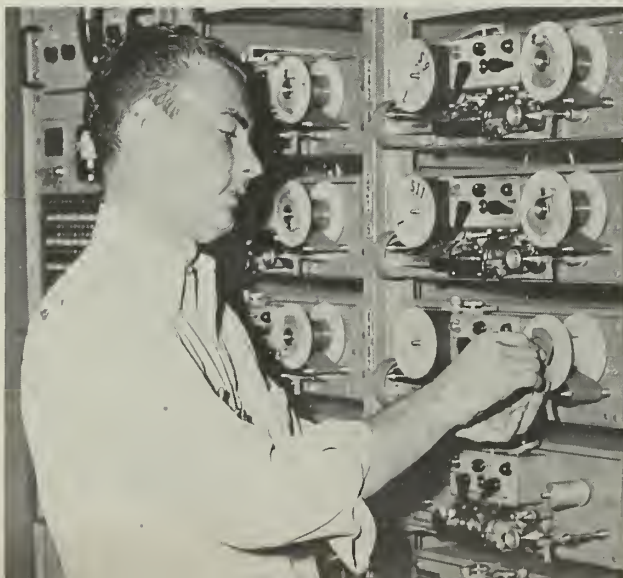
With facilities spread out all over the station, plus homing beacons on Mt. Woodson and Camp Elliott nearby, ground electronic work at Miramar is comparable to that of a radio station and telephone company combined. Millions of miles of small wires with multi-colored coverings weave an unseen spider web, with its center in a small unimposing "frame room" on the second floor of the operations building. Here the wires converge to mold the transmitters, receivers, controls and other electronic gear into one gigantic, effective communications system.

It is the job of ground electronics men to install, maintain, repair, replace and inspect this equipment.

It is a job for professionals—and Navy has them.



MIRAMAR MAGIC—G. C. Blackburn, IC2, loads a tape recorder and (Rt.) L. H. Triplett, ETNSN, checks on transmitter.



LETTERS TO THE EDITOR

Change in Designator

SIR: I became a designated yeoman striker (YNSN) as a result of the February 1960 exam. However, I have been working in a post office for the past year, and would like to go up for Postal Clerk third class in the February 1961 exam.

Do I just go ahead and take the PC3 test, or must I request a change of designator before I could be eligible?—J. F., YNSN, USN.

• You definitely cannot take the PC3 exam as a YNSN. Paragraph eight of Article C-7215, "Bupers Manual," says strikers for a particular rating are eligible for advancement only in that rating.

Your request for a change of designator should be submitted to the Chief of Naval Personnel (Attn: Pers B223) through the chain of command. The article we quoted above contains complete information on this procedure.—Ed.

Wants to Go Back to Sea

SIR: I would like to be transferred back to sea duty. My shore duty tour began a few months ago and I have been told that I must remain on this tour of shore duty until December 1962.

It seems a shame to keep someone on shore duty when he doesn't want it—and to keep someone else at sea who would like to be ashore.

I joined the Navy to see the world. When I reenlisted, however, I received shore duty orders. Isn't there any way for this sailor to go back to sea?—V.H.M., AM2, USN.

• Sorry, but it looks as though you will have to complete your shore duty tour. The sea-shore requirements both in the overall Navy and in the Group IX ratings run about 50 per cent sea and 50 per cent shore. The shore billets have to be filled, too.

Switching Rates, Next Duty

SIR: I am a former teleman who switched to YN in 1958. I am currently on a tour of recruiting duty, with about 32 months remaining on that tour.

I am interested in attempting to convert to the new postal clerk rating recently established, but—first I'd like to find out if changing my rating would affect my tour of recruiting duty.—K.E.H., YNI, USN.

• Have at it, and good luck. Changing your rating will not affect your tour in any way.—Ed.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

For the four reasons why rotation to shore duty (as well as to sea duty) is necessary, we suggest that you read Art. 1.15 of the "Enlisted Transfer Manual."

There are no provisions for a swap from a shore duty billet to a sea duty billet, or vice versa. However, if your command approves and if a fleet crew member of the air transport squadron at your air field wants to swap with you, then you would have a chance to see more of the world.

Of course you're learning this a little too late to do you much good—but when you were on sea duty you could have requested an extension of sea duty. Art. 3.33 of the "Enlisted Transfer Manual" gives details on this procedure.—Ed.

Courses for Dental Technician

SIR: Recently I heard that before taking the test for Dental Technician First Class I would have to complete two correspondence courses in addition to the courses I have already completed. The two are Dental Technician Prosthetic (NavPers 10685-A/91687-1) and Dental Technician Repair (NavPers 10687-A/91689-1).

I can see where those courses would be required for DTs in those specialties, but I am a non-specialist within the rating and do not expect to specialize.—T.F., DT2, USN.

• Courses mandatory for advancement in rating are listed in "Training Publications for Advancement in Rating" (NavPers 10052-H). These courses, whether Navy Training Courses or Correspondence Courses, are based on the quals as included in the manual "Qualifications for Advancement in Rating" (NavPers 18068). The Quals Manual states that the areas covering prosthodontics and dental equipment repair are required only of DTs in those specialties. Therefore the courses covering those specialties are required only for personnel who are now specializing or who will be specializing in those particular areas.

In short, you would not have to complete the two courses to be eligible. It

wouldn't do your career any harm if you did complete them, however.

For further information about the general requirements for advancement in rating you might refer to Part C, Sect. 2 of the "BuPers Manual."—Ed.

Hail Hale

SIR: In the July and August issues of ALL HANDS, you published statements from a couple of AGRs about the number of hours they had steamed in fiscal year 1959.

Let not the DERs be outdone.

While performing the same type of duty—barrier operations—uss Roy O. Hale (DER 336) did a lot of steaming not only in fiscal '59, but also in '58 and '60.

In FY 1958 we steamed 7669 hours, or 87.2 per cent of the total number of hours in that year.

In 1959, although the ship underwent a three-month overhaul, she still steamed 6202 hours for a percentage of 70.8.

And, in 1960 we steamed 6968 hours for a figure of 79.5 per cent.

These statistics were compiled after a close and detailed check of our operating records.

When it comes to hours' steaming, we of uss Roy O. Hale feel it would take a lot to outdo a DER.—Earl T. Lentz, FN, USN, The Log Room.

• Congratulations. We're glad to see you're making such good use of your ship.

We'd like to be able to give you a more serious answer, but if we tried to give the men on barrier duty all the credit they deserve, it would probably take us every page of every issue for a year or two.—Ed.

On Right Ribbon

SIR: Take an occasion that calls for the full dress uniform, and a person has been awarded a Presidential Unit Citation, a Navy Unit Citation and a PUC from a foreign country. Are each of these worn on the right breast at the same time?

—P.F., LTJG, USN.

• No. As Uniform Regs tells it, when full dress is prescribed only the Presidential Unit Citation ribbon (U.S.) or the Navy Unit Commendation ribbon may be worn on the right breast. If you have been awarded both, only the PUC may be worn. No other ribbons may be worn when large medals are prescribed.—Ed.



GOOD START—A. L. McCall, SA, receives American Spirit Honor Medal from Richard Jackson, Asst. SecNav, during graduation at USNTC Bainbridge.

Training Subjects for E-8 and E-9

SIR: I have heard or read that some sort of course will be made mandatory for advancement to E-8 and E-9 next year.

However, when I applied for such a course to study for Master Chief Hospital Corpsman, I was informed there was none available.

Can you give me any information on

GOOD LOOKING — Sailors look sharp during inspection by CAPT. W. D. Bonvillian at NAS New York.



the "mandatory and optional training subjects" for E-8 and E-9 advancement?—M.S.F., HMCS, USN.

• Yes. The mandatory and optional training subjects for E-8 and E-9 advancement are listed in the March 1960 edition of "Training Publications for Advancement in Rating," (NavPers 10052-H).

This publication has been distributed to all ships and stations, and additional copies are available through regular publications supply channels. The study subjects are confined to the military requirements bibliography.

The courses made mandatory for the 1961 exams are: "Navy Regulations" (NP 10740-A) for E-8's, and "Military Justice in the Navy" (NP 10993) for E-9's.

Other publications that should be read include: "Administration of CPO Messes Ashore"—for E-8's; "Division Officer's Guide"—for E-8's and E-9's; and "Status of Forces Agreements" (NavPers 10008)—for E-8's and E-9's.

For complete reading recommendations, you'd do well to get a copy of NP 10052-H.—ED.

Temporary Service for LDOs

SIR: I have two questions, the answers to which will be of interest, I think, to many LDOs.

First, do the years served as a temporary commissioned officer during World War II count toward "total commissioned service" in computing 10 years' total commissioned service for retirement?

Second, is the Bureau considering re-establishment of dates of rank for those officers who previously served as a warrant or commissioned officer? This is asked in view of the present program under which warrant officers are being promoted to LDO.—LT. M.C.S., USN.

• Any service as a temporary commissioned officer in the grade of commissioned warrant officer W-2 or above is counted in the determination. Title 10, U.S. Code, Sect. 6323 states, in part: "For the purpose of this section (Retirement on 20 years of active service) an officer's years of service as a commissioned officer are computed by adding all his active service in the armed forces under permanent or temporary appointments in grades above Warrant Officer W-1."

As for your second question, the only adjustments in rank being contemplated are those for LDO and MSC officers with former warrant service who are now serving in grades below O-3. These adjustments are prompted solely to equalize these officers with their former warrant contemporaries who will be appointed in grades up to and including O-3 under the Special Warrant to LDO selection board.—ED.

Letter from ROK Navyman

SIR: It is a great pleasure to write this letter.

I had duty as a Republic of Korea Liaison officer for several months in 1951 (from June to December), on board USS *Los Angeles* (CA 135). It is one of the most modern and finest combatant ships I have ever seen. I have never forgotten the valuable naval experience obtained during this period, which I consider to be one of the best training courses I have ever received.

I have been attending the Bureau of Naval Personnel Management Course at Washington, D.C., as a student officer since July 25th of this year. During my stay here, I had the honor of meeting Admiral Burke, Chief of Naval Operations, who was Commander Cruiser Division Five in 1951, and Mrs. Burke. I also met Captain McFarlane, the then Commanding Officer of *Los Angeles*, and Mrs. McFarlane. Seeing both Admiral Burke and Captain McFarlane, I remembered that I had sailed with them aboard *Los Angeles* off the coast of Korea.

Captain McFarlane had taken a particular interest in me, who had no practical knowledge of United States naval life at the time. I was very grateful in being assigned to each department of the ship to receive training and education about the various aspects of my sea duty. I have always remembered, whether I was serving afloat or ashore, that learning about United States naval life was a valuable period of my training. This precious experience on board that ship has always been a guide and orientation in my service in the Korean Navy. Therefore, life aboard *Los Angeles* is fresh and vivid in my mind even now.

I would like to take this moment to convey my deepest appreciation to Admiral Burke, Captain McFarlane and

other naval officers and men under their command in 1951.

Wherever I may be, the memory of those days will always remain in my heart.—Pak Chan Kuk, CDR, Republic of Korea Navy.

• *Thanks for your kind comments about our Navy and the men who serve in it. We like to feel that your attitude represents that of the large number of personnel of foreign navies with whom the U.S. Navy comes in contact. Best of luck to you and to the ships and crews of the Republic of Korea Navy.*—Ed.

Overloaded Weatherford

SIR: This paragraph about *uss Weatherford* (EPC 618) was part of a letter in your August issue from an ENS C. R. L., USN:

"Today at Key West, the 441-man crew is willing and ready to take part in any sporting event, fund-raising drive or, for that matter, anything where competition is involved."

We at the Recruiting Sub-Station in Monroe, La., contend:

First—that *Weatherford* is overmanned, probably because someone forgot to have the crew fill out Seavey cards. With practically everyone in the Navy being sent to this ship and no one leaving her, it's no wonder there's so much pressure on Recruiting to find more men for the Navy.

Second—that *Weatherford* has a serious berthing problem.

Since *Weatherford* is of 1942-vintage, I am sure she cannot accommodate 441 men in 173 feet of ship.

Is this an error on the part of ENS C. R. L.?—W. C. Choitz, SHC, USN.

• *Congratulations—you have just discovered the real reason behind Weatherford's zest for competition against other ships.*

Obviously, the men are so anxious to get away from excessive togetherness that they are willing to compete against anybody in anything—so long as the competition is held in the opponent's territory.

We understand Weatherford has not played a home game in any sport for several years. As we heard it, the last time was when she challenged another ship to a checker match. Unfortunately, the match had to be called off because 20 or 30 men on the edge of the crowd fell overboard when the spectators around the checkerboard stepped back so the board could be opened.

The berthing problem in Weatherford is not as bad as it might seem at first glance, since new crew members quickly learn to sleep standing up. Another thing new men learn quickly is to put in their retirement papers on their first day aboard. That way they can be sure of getting through to the gangway by the time they've completed their 19 and six.

Now, in case you're interested in



HAPPY CREW—Newly commissioned officers, graduated from U. of Wisconsin, hold ENS *Gay Rost*, Nurse Corps, USNR, school's first commissioned coed.

mere facts, we hereby inform you that ENS L. was not responsible for all this. The whole business was the result of a typo which we didn't catch.

Ensign L. did catch the mistake—and to show you what a wide-awake PIO he is, we offer the following letter as evidence.—Ed.

SIR: The officers and enlisted men of Key West Test and Evaluation Detachment were delighted with the write-up you gave *Weatherford*.

Her type commander, Commander Service Force, Atlantic Fleet, has just adjudged her the best in her class in the Battle Efficiency Competition for Fiscal Year 1960, and the scrappy little PC also won a Communications "C."

Incidentally, the ship has an on-board count of four officers and 41 enlisted men—not 441 men, as stated in the August issue. However, *Weatherford* does the sort of a job that would lead one to believe she has that big a crew.—ENS C. R. Lane, USN.

Aviation Ground Officer

SIR: Is it possible under the Integration Program to obtain designation as an aviation ground officer?

The squadron's Education Officer and I have thoroughly studied the directives on the Integration and LDO programs. As we interpret this material only the LDO program offers the opportunity for designation as an aviation ground officer.

I would like to be commissioned and remain in the aviation field. It will be two years before I am eligible to apply for LDO, but I can apply for Integration at any time.—J.R.S., AD2, USN.

• *Yes, it is possible.*

Selectees under the Integration program are appointed as officers in the

Line (1100), Supply Corps (3100) and CEC (5100). However, men appointed in the Line may apply for a change of designator to code 1350, "A line officer, a member of the aeronautic organization who is not a pilot." Application for the change would be made in accordance with BuPers Inst. 1210.6A.—Ed.

LOVELY LASS holds a radiosonde, part of NOL's new one-pound rocket-borne weather station. It transmits high-altitude temperatures to ships below. A metalized parachute, when tracked by radar, gives wind info.





LEADERS ALL—First Class POs, graduates of leadership class at NAS Oakland, pose for photo with instructors and CO.

Computing Leave Credit

SIR: My question concerns the computation of leave credit for fractional months of service.

The case in point involves a man who enlisted on 7 Jan 1960.

Since he was in the Navy for 25 days of that month, I claim he should be credited with a full two-and-one-half days of leave for it. Those on the opposite side of the discussion contend he would only get two days of leave credit because half a day would be deducted for the six days he did not serve.

We'll buy what you say.—R. H. W., YNC (SS), USN.

• You win—he gets the full two-and-one-half days.

Article C-6301 of the "BuPers Manual," which covers this subject, says, "Leave shall accumulate for fractional parts of a month in accordance with the following table:

- 1 to 6 days, inclusive $\frac{1}{2}$ day
- 7 to 12 days, inclusive 1 day
- 13 to 18 days, inclusive $1\frac{1}{2}$ days
- 19 to 24 days, inclusive 2 days
- 25 to 31 days, inclusive $2\frac{1}{2}$ days."

You'll notice that the sentence preceding the table gives those figures as the rates at which leave "shall accumulate"—not at which it would be deducted for time not served.

Which goes to show once again the power of positive thinking.—Ed.

Opportunities for a Commission

SIR: Take the case of men in the 26-to-29-year-old category. They are in their second enlistment; have been on active duty eight or more years; are in a grade of PO2 or above; plan on a full career in the Navy. Most of them have a high school diploma.

Many men of this group would like to go to college. Earlier, the only way to do so had been through the Navy's Enlisted Advanced School Program, which no longer exists. But owing to a change in requirements these men have lost their opportunity to attend. The change I speak of is lowering of maximum age limit (with no waivers).

Yet the program is offered to younger men who may lack the maturity and purpose of these in the older group—and who may not be careerists. I think a program similar to NESEP should be started for men in the 26-to-29 group, a program whereby they could attend college full time.—W.A.F., AE1, USN.

• The men you describe are prime candidates for LDO(T) and, in fact, are looked upon as the source of officers for this program. That they are no longer eligible for NESEP rests on a decision made in May 1959, which combined NESEP and the older NEASP into the present program.

When the programs were combined, the new NESEP became an officer procurement program as an in-service supplement to the Naval Academy and the NROTC. The graduates of NESEP will be career line officers with the same opportunities, responsibilities and duties as their contemporaries from the other two programs.

Flags in Boats

SIR: I know that ships' boats fly the national ensign in ports overseas. How come in Stateside ports they fly the ensign sometimes and sometimes they don't?

—E.E.S., YNSN, USN.

• It depends upon who is embarked. The national ensign is flown from ships' boats stateside: (1) when an officer or official is embarked on an official occasion, and (2) when a flag or general officer, a unit commander, a commanding officer, or a chief of staff (in uniform in each case) is embarked in a boat of his command or in one assigned to his personal use.

The ensign is also flown when ships in the area are required to be dressed or full dressed and when going alongside a foreign vessel. And lastly, the ensign is flown when so prescribed by the senior officer present.—Ed.

The maximum age limit was lowered from 30 to 25 to insure that NESEP graduates (new maximum age upon graduation, 29) would be more nearly the same age as graduates of the two other programs.

The majority of those selected for the NESEP are POs and have proved through their performance their officer-like qualifications. In addition, considerable care is taken to insure that all those selected are career men.

Men in the 26-to-29 category have many opportunities in the LDO(T) program. While that program has no provisions for college training, it still has numerous aspects that merit consideration. Fact is, the opportunities for a commission are greater through the LDO(T) program than through the NESEP program.

The LDO does not require college training in the performance of his duties. To send him to college would result in a loss to the Navy of his technical knowledge and skills during this period. The LDO does not compete with college or Naval Academy graduates for promotion.

The matter of college training in general is another subject. It is not offered by the Navy in order to fulfill the desires of individuals. Rather, it is offered to those persons who will require it in performing assigned duties to meet the needs of the service.—Ed.

Consecutive Days at Sea

SIR: I served on board the heavy cruiser USS Rochester (CA 124) during the Korean conflict. Could you furnish me with some information on her activities during that time?

First—what was the longest stretch for Rochester at sea without sighting land? Also—how many consecutive days was Rochester at sea at any one time?

I would much appreciate seeing some printed proof on these questions. There's a CPO here at NAS Dallas who isn't about to accept my word for it.—CPL J. P., USMC.

• Well, Corporal, either the Chief will have to take your word on the first

item, or the argument will just have to continue indefinitely. In order even to attempt to answer your question, it would be necessary to check every position ever noted in Rochester's logs during the Korean conflict. Then those positions would have to be fixed on a chart, and calculations based on weather, etc., made to determine when the ship was out of sight of land. Obviously, this would be impossible.

Now, in regard to your second question—according to a report submitted by Rochester herself, in October through December 1950, she operated for 81 consecutive days at sea. This was apparently her longest continuous stretch at sea during the Korean War.

Hope this will help substantiate your claims—anyway happy sea stories.—Ed.

Why Sea Duty Tour Was Extended

Sir: After completing required sea duty and submitting my Seavey card, I hopefully assumed that upon completion of my overseas tour I would be ordered to shore duty.

Instead, some months after submission of my Seavey card, my personnel office received an IBM card stamped "Deleted from Seavey. Tour extended beyond report range. Instructions forthcoming from appropriate EPDO." This was followed about a week later by a letter from EPDOPAC, stating that my sea tour had been extended 14 months, and requesting my choice of homeport and type of ship.

No doubt the needs of the service dictated this extension—however, at least two other CPOs (one RMC and one TERMCA) both with less time on their current tour than I had, have received their Seavey cards back with the Naval District to which they will be assigned.

I know very little about the workings of Seavey, and what I do know I'm

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, ALL HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *uss American Legion (APA 17)*—A reunion is being planned for the fall of 1961. All shipmates who are interested may write to Nick Buongiorno, 688 Clifton Ave., Clifton, N. J.

• *uss Iowa (BB 61)*—Those who served from February 1943 to November 1945, and who are interested in holding a reunion, may write to Ben Kozdras, 2636 Birch Ave., Whiting, Ind.

• *Composite Squadron VC-99*—All who are interested in holding a reunion in the midwest in 1961 may write to Charles E. Scheffe, 360 South Spencer Ave., Indianapolis 19, Ind.

not sure I understand. I would appreciate it if you could answer any or all of the following questions for me.

Do I submit another Seavey card with my segment when that time rolls around again?

When does this 14-month extension commence?

Will this added sea duty increase the possibility of my getting my first choice of duty when I am ordered to shore duty?

How was it determined that my sea tour be extended, while others with less sea time on their current tour were ordered ashore?

Did my choices of duty listed on my Seavey card have any bearing on this?

If I had requested "anywhere U. S.,"

would I have received shore duty orders?

Did the fact that I am now serving overseas instead of afloat have any effect?—D.W., RMCA, usn.

• *That's a big order, Chief, but here goes.*

Yes, you should have already submitted a card in November 1960 for Seavey Segment 1-61, and you will be considered after completion of your sea extension, which began in July 1960. You will be considered in July 1961.

In all probability your added sea duty will increase the possibility of your getting your first choice when ordered ashore. Assignments are made for eligible personnel on the basis of total active service and duty preferences. As for other Navymen ordered ashore ahead of you, several explanations are possible—they could have been senior to you, have been in a different rate, or a requirement could have existed ashore in the area of their choice at time of rotation. So, your choice of duty certainly had a bearing on others being ordered ahead of you.

It is possible that if you had requested duty anywhere in the U. S., you might have received orders before—again, however, that would have depended on seniority, the number and location of requirements ashore at that time, your obligated service and dependent status.

The fact that you are serving overseas instead of afloat does have some bearing on when you will be ordered ashore. You are considered once upon completion of an overseas tour. You were considered with others completing overseas tours. Since you could not be utilized in the area of your choice at that time, you were made available for further assignment to sea duty. Rotation dates are firm, thus it was either shore duty or reassignment at sea.—Ed.

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SOMETHING FISHY—Seabees G. W. Byington and E. Bridges pose with 236-pound grouper caught at channel entrance of lagoon around Canton Island.

Scuba Men Find Mystery Ship

SIR: This summer a group of 23 Scuba divers from the Empire State Council of diving clubs had the pleasure of exploring a ship said to be *uss San Diego*. She was located on an open sand bottom in about 120 feet of water, some 10 miles off Fire Island (which is on the south shore of Long Island, N. Y.).

It was difficult to identify specific characteristics of the ship since she was lying upside down, and practically all the superstructure was covered with sand—except the foremast, which had collapsed and was lying to one side, and two guns, which appeared to be about six-inch, 50 caliber, projecting from a barrette mount.

I have been unable to get either a good description of the ship, or a clear account of her loss.

One source says *San Diego* is the ex-*uss California*, an armored cruiser sunk by mines or torpedoes in July 1918. Another says she is a former battleship which sank while trying to beach on Fire Island after being hit by a German torpedo.

Incidentally, I was amazed at the lack of deterioration and rust on the hull and fittings. Very little marine growth was present, and she still had all her anchors, as well as her propellers and shafts.

It made for such an interesting dive that no one left the ship until the very last breath of air had been extracted from the SCUBAs.—CDR D.R. Ferrin, SC, USN.

• You must be like the fellows in that poem—the one about “men who go down to ships in the sea.”

Now that we’ve got that off our chests, we’re ready to get serious.

The ship you explored was apparently *uss San Diego* (ex-*California*), ar-

mored cruiser number six, the only major American warship to be sunk by an enemy submarine in World War I.

A veteran of several Atlantic convoy runs, she had just gotten out of drydock at the Navy Yard, Portsmouth, N. H., when she left there for New York on 18 Jul 1918, to begin what turned out to be her last voyage.

At about 1000 on 19 July, her lookouts spotted something that has been described as a “fast-moving barrel.” *San Diego*’s gunners fired at it a while, then it disappeared, and the ship resumed what seemed to be an uneventful trip—for wartime.

The “uneventful” cruise ended suddenly about 1105, some 10 miles southeast of Fire Island lightship. There was an explosion which blasted an opening in *San Diego*’s port side, well below the water line. The ship took a list to port as water roared in.

CAPT H. H. Christy, who assumed *San Diego* had been torpedoed, ordered the gun crews to fire in the direction where a submarine might be. The crew kept up their fire until the water got to the barrels of their guns, then they jumped overboard.

Around 1125 the ship finally rolled over and sank, bottom up. Six of the crew were lost—three of them killed in the explosion and three more who drowned. Six others were injured.

San Diego’s radio was knocked out of commission by the explosion, so two boats were sent off for Long Island to report the sinking and seek help. The boats came in at a resort called Point O’ Woods, where residents had heard the explosion and reported seeing a flash.

A Navy pilot, flying over the area, also witnessed the disaster and had reported it. Three merchant ships, ss

Malden, Bussan and F. P. Jones steamed to the rescue. They pulled 1156 survivors out of the water and took them to New York.

Afterward, there were three different theories as to what had sunk *San Diego*. Most of the opinion was divided between mines and torpedoes as the cause, but there were some survivors who thought there had been some kind of internal explosion.

Navy ships which searched the area the day after the sinking reported the sighting of six mines, and a Navy Court of Inquiry agreed with the mine theory. The laying of the mines was attributed to the German submarine, U-156.

Later information, from German records in the custody of the British Admiralty, stated that U-156 was not a minelayer. However, she had sailed for the coast of America in time to be in on *San Diego*’s sinking.

On 24 Sep 1918, when that submarine was almost back to Germany, she sent a wireless message in which she claimed the destruction of 41,600 tons during her cruise—including *San Diego*. The very next day, according to the German records, U-156 ran afoul of the American North Sea Mine Barrage and sank without any survivors.

The British Admiralty report on the matter concluded without doubt that *San Diego* was torpedoed by U-156. This theory now seems to be the most generally accepted one.

Built at San Francisco, Calif., *San Diego* had an over-all length of 503 feet, 11 inches, and her extreme beam was 69 feet, seven inches. Her normal displacement was 13,680 tons, and she was designed for a speed of 22 knots. Her primary armament consisted of four 8-inch/45s and 14 6-inch/50s. In her secondary battery she carried 18 3-inch/50s, 12 three-pounders, two one-pounders and four .30 caliber guns. She also boasted two 18-inch submerged torpedo tubes.

San Diego was designed for a complement of 47 officers and 782 enlisted men.

Launched on 28 Apr 1904, she was commissioned as *California* at the Mare Island Navy Yard on 1 Aug 1907 and fitted out as a flagship. She kept the name *California* until 1 Sep 1914.

California became *San Diego* on 1 Sep 1914, when the state’s name was given to a new battleship. Except for a bit of time in the yard, *San Diego* was Flagship of the Pacific Fleet from that month until the spring of 1917. Then she served briefly with the Patrol Force of the Pacific Fleet before leaving the West Coast in July 1917 for convoy duty in the Atlantic.

After escorting several convoys and serving as their flagship, *San Diego* entered the drydock at the Navy Yard, Portsmouth, N. H., on 30 Jun 1918. She came out on 16 July, and on the 18th, left for her rendezvous with U-156.—ED.

The Silent Language

IT'S QUITE POSSIBLE that underwater swimming will achieve an even greater popularity than it now enjoys simply because Pete Wisher was fortunate enough to receive a two-week tour of training duty at Little Creek, Va., two years ago. It is certain that Navy scuba divers will get more accomplished and, possibly, live a little longer because of Pete.

A lieutenant commander in the Naval Reserve, Pete was glad to get his orders to the amphibious service. His Little Creek tour would give him a chance to learn more about scuba diving—and swimming was his specialty.

He had a fine time, learned a lot, met many interesting people, and became a thorough-going scuba enthusiast. However, like all other scuba divers, he was faced with one aggravating problem. He couldn't talk underwater.

No one, it seems, had done much to correct this situation. In any event, no one had come up with a practical solution. In the opinion of those who know scuba best, Pete may have done so.

As a civilian, Pete is Dr. Peter Wisher, chairman of the physical education department, swimming coach, and director of athletics at Gallaudet College at Washington, D. C. Gallaudet is famous throughout the world for its work in the edu-

cation of the deaf. Communication between people is one of its most important considerations. During the six years Pete had been in this position at Gallaudet, he had learned as a matter of practical necessity how to "sign," that is, to spell with his hands according to the American manual alphabet for the deaf.

Although the manual alphabet consists of 26 positions (one for each letter of the alphabet) of one hand, Pete had noticed that most deaf people had evolved certain arbitrary signs which conveyed a complete idea—not just one letter. Wouldn't it be possible, Pete asked himself, to adapt a very simple vocabulary based on some of these signs, which could be used by scuba divers to communicate those phrases most used by them?

Would it be possible? It would. You'll find the results of Pete's work on the following pages, accompanied by the manual alphabet.

After Pete's Little Creek experience, he returned to scuba the following year at the Underwater Swimmers School at Key West, Fla. With the aid of his scuba friends, he devised some 100 symbols which cover most situations to be found underwater. Instructors and swimmers at both Key West and Little Creek tried the idea and found that it worked. It has been adopted by

the Training Division at the Bureau of Naval Personnel and has been introduced as a part of the curriculum at Key West.

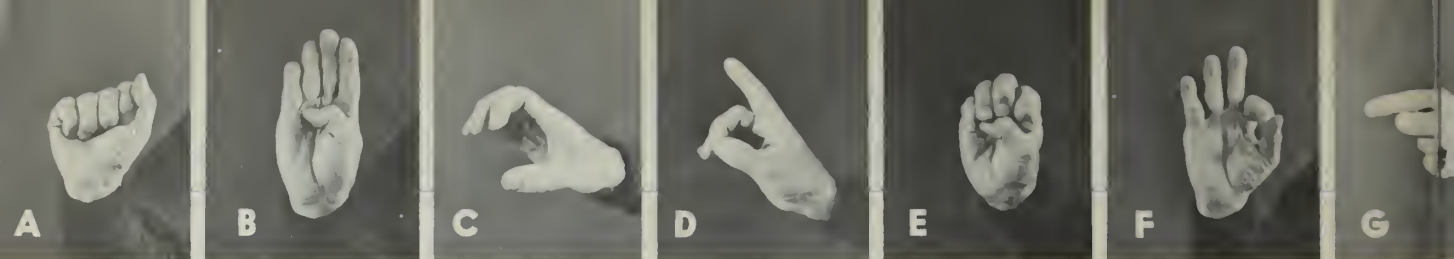
SIGN LANGUAGE is not new. It has been carried on by many people for hundreds and thousands of years. The American Indians, for example, had evolved a somewhat complicated language which transcended local dialects and enabled members of one tribe to communicate with another. In more recent days, longshoremen have created a simple set of signals which enables the man in the hold of a ship to give directions to the crane operator.

So far as is known, the Egyptians, Greeks and Romans used finger signs for numbers and on certain Assyrian monuments, it would appear that the persons depicted are trying to convey ideas with their hands. The Venerable Bede, English scholar and historian, described finger spelling more than a thousand years ago, and three manual alphabets are shown in an edition of his works published in 1532. Monks and others under vows of silence used both signs and finger spelling.

As far as is known today, the first finger alphabet adopted in teaching spoken and written language to the deaf was a Spanish one-hand alpha-
(Continued on page 36)

HANDY LANGUAGE—LCDR Peter Wisher, USNR, shows newly adopted silent language to crew of *Nautilus*, SS(N) 571.





UNDERWATER LANGUAGE



ME

Hold right hand in the D position, point index finger at your chest.



YOU

Right hand in D position, point index finger at chest of partner.



WE

Right hand in B position on right side, move to left, touching chest.



THEY, OTHERS

Right hand in A position, move the thumb in the direction of persons.



YES, AFFIRMATIVE

Right hand in A position, move hand up and down, flexing at wrist.



NO, NEGATIVE

Right hand in A position, thumb touching chin; move hand forward.



ERROR, BELAY THAT

Right hand in Y position; place under chin, palm facing down.



AM, IS, (verb TO BE)

Right hand in D position, index finger to lips, then point ahead.



CUT, SAW

With right hand, make scissors motion crossing body to left side.



BEND, BREAK

Hands in S position, palms down; bring hands down, roll hands out.



GO

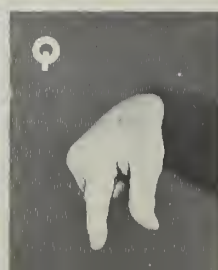
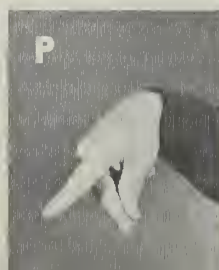
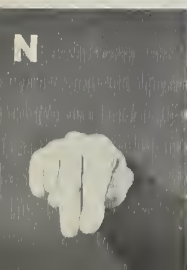
Both hands in G position chest high; rotate hands away from body.

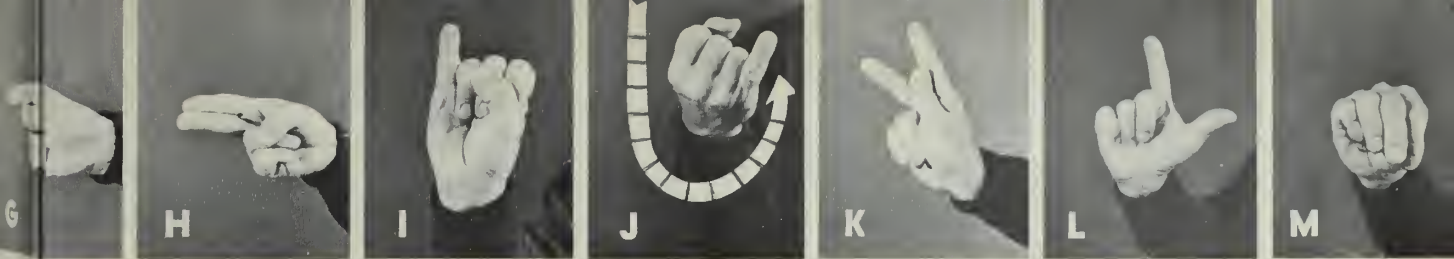


COME

Hands in same position as GO, but hands will rotate toward the body.

Prepared by All Hands Magazine





ALPHABET FOR NAVYMEN



WHO
Right hand in D position, circle your mouth with your index finger.



WHAT
Move right hand in D position across left hand in B position.



WHEN
Both hands in D position, make a clockwise circle with right hand.



WHERE
Right hand in D position, wave index finger from left to right.



HELP
Left hand in B position, right in ; raise right hand with the left.



GIVE, PRESENT
Hands close to body in X position, palms facing in; move hands forward.



LOOK, SEE, SEARCH
Right hand in V position; move to eyes, then bring the hand forward.



WORK
Both hands in S position with palms down; strike left wrist with right.



FOLLOW
Both hands in A position, palms in; move forward, right follows.



MEET
Hands in D position, palms in; from shoulders, bring hands close.



WANT, DESIRE
Use both hands, palms up, fingers spread; form S, draw hands to body.

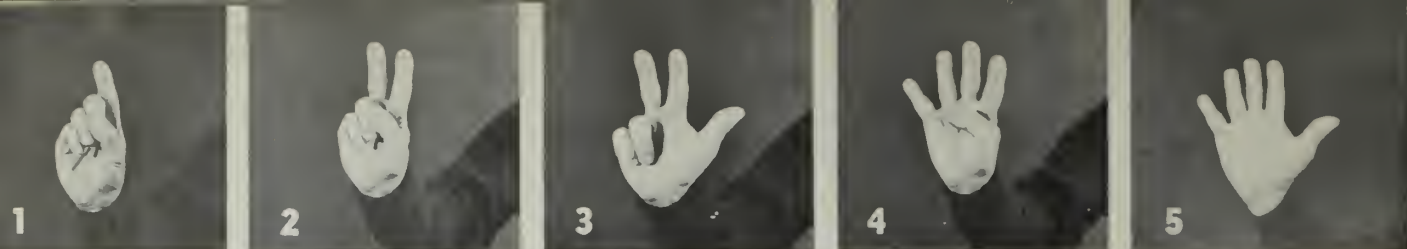


DRINK
Hold an imaginary cup in your hand then bring it up to mouth.

December 1960

continued on next page





UNDERWATER LANGUAGE FOR NAVYMEN continued



START

Left hand in V, palm in; right in D; right index through the V.



STOP

Both hands in B position; chop left hand with edge of right.



OPEN

Both hands in B position, index fingers touching; move outboard.



CLOSE

Both hands in B position at the shoulders; move hands inboard.



IN

Left hand in C, right in O position; move right inside the left.



OUT

Reverse of IN. Right hand held by left. Pull right from left.



ON

Both in B position, left down, right up; flip right onto left.



OFF

Reverse of ON. Right fingers resting on left. Move outboard.



THROUGH

Both in B position; pass right through middle fingers of left.



FORWARD, AHEAD

Right hand in B position near ear; bring the hand forward.



FAST, HURRY

Right hand in H position, palm inboard; vibrate hand rapidly.



SLOW

Both in B position, palms down; move upper hand toward body.



TIRED

Both hands in O at chest with palms down; swing hands down.



MANY

Both in S position, palms up; extend fingers up several times.



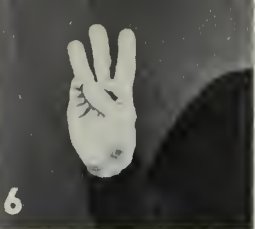
FEW

Right hand in E position; shoot marbles several times with thumb.

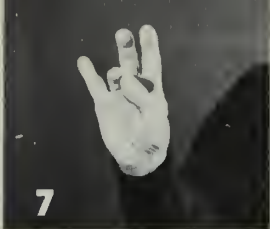


AGAIN, REPEAT

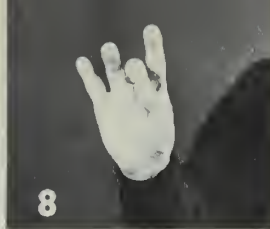
Both hands in B position; touch fingers against palm of other hand.



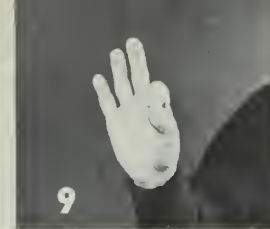
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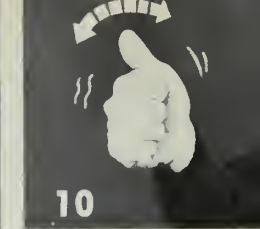
7



8



9



10

Letter "O" can be used as "ZERO" for indicating numbers above ten.



TRY, EFFORT

Both hands in T position at shoulder level; move down.



MISSED

Right hand in C position at shoulder; move hand past nose to left.



MUST, REQUIRED

Right hand in X position at shoulder; move forward in sharp jerks.



FINISH

Both in B position, palms down; follow shape of left with right.



OVER

Both hands in B position; move right hand over the left hand.



UNDER

Both in B position, palms down; move right hand under the left.



ABOVE

Both hands in B position, palms down; zigzag right hand upward.



BELOW

Both hands in B position, palms down; zigzag right hand downward.



HARD, DIFFICULT

Both hands in X position; knock right fingers against the left.



EASY,

Both hands flat, palms facing upward; brush right under left hand.



HOT

Right hand over mouth in C position; move hand away, palm down



COLD

Both hands in S position; shoulder level; vibrate hands briskly.



SHIP

Hands cupped in B position, little fingers touching; move ahead.



HOME, EAT

With right hand in O position; bring hand up to your mouth.



FISH

Right hand in B position, palm in; vibrate, move hand forward.



ROPE

Left hand in R position; slide right hand toward the right.

UNDERWATER LANGUAGE FOR NAVYMEN continued



TOOL

The collective term for any sort of tool is a vibrating T symbol.



WRENCH

A vibrating W symbol will refer more specifically to a wrench.



TARGET, OBJECTIVE

Both hands in D position, palms in and high; touch index fingers.



OBSTACLE

Both hands in B, fingers spread; bring together, tangling fingers.

(Continued from page 31)
bet originated in 1579.

The present language for the deaf is believed to have begun in the 18th century when the Abbe Charles Michel de l'Epee founded a school for the deaf in Paris in 1760. An improved form of this alphabet was learned by the Reverend Thomas H. Gallaudet when he visited the school in 1815. Upon his return to the United States, Gallaudet established the first school for the deaf in the United States at Hartford, Conn.

IF YOU WANT TO TRY the Wisher system yourself, here are a few tips passed on by him:

There are two parts to the sign language. The first, the manual alphabet, consists of 26 positions of one hand, each position representing a single letter. It is recommended that you learn this first, as it serves as the basis for the description of the more complete signs and any necessary word not covered in the manual can be spelled out. However, you can't learn by merely looking at the pictures. You must practice and, of course, it makes much more sense to practice with a companion.

The second portion, the signs, are

movements with the hands which represent actions, ideas or objects. They are, so to speak, a shorthand (hah!) system whereby a thought is conveyed by a single movement instead of laboriously spelling out the complete word. To say, for example, "What time is it?" you simply point to your wrist.

The same movement can convey a number of ideas, depending upon the context. By pointing to your wrist, then upward, it can mean that it is time to get out of the water. By pointing to your wrist, then holding up three fingers it could mean that it is three o'clock, or that you have three minutes more to go.

By using a combination of symbols, you can convey such messages as: "Take the hammer off the top so we can open it. Come up and help me get the line. I am tired, I need a rest. Are you hurt? No, I am cold. In the water, your biggest enemy is you." Not great literature, but it does get the idea across.

Grammatical ideas are, of course, secondary. The intent is to tell your partner what's on your mind, not to write a book.

Although the system is primarily intended to aid underwater swimmers, it can be equally well adapted

to any situation where speech or hearing is difficult or, on the other hand, where absolute silence is required. There's no reason, for example, why it can't be used in the engineroom where it's easy enough to speak, but difficult to hear. The necessity for absolute silence in peacetime is relatively rare but when it does arise, this is a convenient expedient.

It might also be mentioned that visibility is not an absolute requirement. Messages can be conveyed by sense of touch if you and your partner have earlier arranged a set of signals adapted to this somewhat awkward situation.

Furthermore, it isn't absolutely necessary to have both hands free. (One hand is useful, however.) In many cases, it's possible to send your message by using your right hand in relation to your left wrist, arm or shoulder.

Does all this sound complicated? It isn't. Men at the Underwater Swimmers School receive six hours of instruction. However, once the basic signs are learned, it is necessary to continue to practice in order to develop speed and skill.

Try it. You'll find it has many applications never mentioned by Pete.



DANGER, TROUBLE

Right hand in D position near side of head; snap fingers apart.



OK, GOOD, FINE

Hand in F position indicates the traditional sign for "All's well."



TIME

Right hand in X position, repeatedly tap back of the left wrist.



COFFEE

Clench fists, rotate one above the other like coffee grinder.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

New Fleet Ballistic Missile Sub

First ship in a new class of Fleet Ballistic Missile submarines, *USS Ethan Allen*, SSB(N) 608, has been launched at Groton, Conn.

Designed from the keel up for the firing of the *Polaris* missile, the ship displaces 6900 tons and is 410 feet long.

Named after the Revolutionary War leader of the Green Mountain Boys, the ship will displace over 1000 more tons and be 30 feet longer than the *George Washington*-class ships. *USS George Washington*, SSB(N) 598, and *Patrick Henry*, SSB(N) 599, are now in commission and soon to be deployed with the Fleet. Three more ships in this class are due to join the Fleet in 1961: *Theodore Roosevelt*, *Robert E. Lee* and *Abraham Lincoln*.

Under construction in the *Ethan Allen*-class are the *Sam Houston*, *Thomas A. Edison* and *John Marshall*—all of which will be launched in 1961. Construction on a fifth unnamed ship in this class is due to start this fiscal year.

Under order are four more ships of still another class, the *Lafayette*-class, which will be 425 feet long and displace about 7000 tons. Only the lead ship has been named.

Seawolf Is Back

When the high-speed attack submarine *USS Seawolf*, SS(N) 575, was recommissioned at New London, Conn., not long ago, she added two more "firsts" to her record.

In rejoining the Atlantic Submarine Force after more than 17 months on the sidelines, *Seawolf* became the first atomic submarine to be recommissioned, and also the first submarine to be recommissioned via telephone.

Heavy rains resulted in the transfer of the traditional dockside ceremonies indoors—to a large cafeteria a short distance from the dock. As VADM Charles Wellborn, Jr., USN, Commandant of the Third Naval District, read the orders placing *Seawolf* in commission, word was relayed by phone to the ship, where the ensign, union jack and commissioning pennant were hoisted.



CRUISER GASSER—A rare refueling occurred when *USS Saint Paul* (CA 73) pumped gas to a P5M which landed at Buckner Bay, Okinawa, to refuel.

Phantom Breaks Own Record

The Navy's fastest fighter, the F4H-1 *Phantom II* has hit 1390.21 miles per hour in an apparently successful assault on the 100-kilometer world speed record.

In the attempt at the record, the plane was piloted by CDR John F. Davis, USN, over a 62-mile circular course at Edwards Air Force Base, Calif. If the flight is recognized by the Federation Aeronautique Internationale, in Paris, it will better by more than 200 miles an hour the old mark of 1167 mph, set by Brigadier General Joseph H. Moore, in an F-105B on 11 Dec 1959 at Edwards.

The record claim was the second earned by the *Phantom II* within

recent months. In September, the Navy submitted a claim for a 500-kilometer world class record of 1216.78 miles per hour.

The *Phantom II* is a two-seat, all-weather jet fighter. It is powered by two J-79 engines, each developing more than 16,000 pounds of thrust and, if necessary, it can be flown on one engine. Scheduled to become operational this year, the plane will be armed with *Sparrow III* air-to-air missiles. It is capable of long-range delivery of either conventional or nuclear weapons.

CDR Davis was assigned to the Bureau of Aeronautics (now Bureau of Naval Weapons) in 1959 for duty on the *Phantom II* project.

YESTERDAY'S NAVY



On 10 Dec 1941 the Japanese submarine I-170 was sunk by carrier-based aircraft in the Hawaiian Islands area. On 11 Dec 1775 a committee was appointed by the Continental Congress "to devise the ways and means for furnishing these Colonies with a Naval Armament." On 14 Dec 1944 the rank of Fleet Admiral was established. On 20 Dec 1861 the First Stone Fleet, composed of 17 vessels loaded with rocks, was sunk at the entrance to Charleston Harbor, S.C., in an effort to bottle up that Confederate port. On 21 Dec 1864 the rank of VADM was created.



KING-SIZE SHAMPOO — Carriermen of USS *Coral Sea* (CVA 43) man the swabs as they give the flight deck of their flattop a scrubbing on the high seas.

Guided Missile Ships

Four U.S. Navy guided missile ships now under construction have moved past the numbers stage—they now have names.

Two of the ships are guided missile destroyers. DDG 15 has been named *Berkeley* and DDG 18, *Semmes*.

Berkeley is named for Major General Randolph C. Berkeley, USMC, a Medal of Honor winner. He entered the Marine Corps in August 1898 and served for 41 years. Commanding the First Battalion of the Second Advanced Base Regiment at Vera Cruz, he distinguished himself in action to earn the nation's highest award for heroism.

Semmes is named for Commander Raphael Semmes, USN, (later Rear Admiral, Confederate States Navy). He was appointed a midshipman in 1828 and rose to the rank of Commander, USN. At the outbreak of the Civil War he resigned his commission and was appointed a Commander in the Confederate States Navy.

During that war he commanded *css Sumter*, and later *Alabama*. In June 1864, *Alabama* was sunk in battle with *uss Kearsarge*. In February Semmes was promoted to Rear Admiral and took command of the James River Squadron.

The other two ships recently named are guided missile frigates. DLG 18 will be commissioned *uss Worden*, and DLG 19 will become *uss Dale*.

Worden is named for Rear Ad-

miral John L. Worden, USN, who commanded *uss Monitor* in the world's first battle between ironclad ships. After he was promoted to Captain, he commanded the ironclad *Montauk*, which destroyed the Confederate cruiser *Nashville*. Later he served as superintendent of the Naval Academy.

Dale is named for Commodore Richard Dale, USN, who was First Lieutenant of *Bonhomme Richard* under John Paul Jones when he captured *Serapis* in December 1779. During 1781-1782 he commanded *Queen of France* and made several captures. Commodore Dale was appointed a midshipman in 1776, and served in the Navy for more than a quarter of a century.

Field Day for Forgotten Sailors

Thanks to the efforts of crew members of two DesRon 10 destroyers, an aged "Cementerio Ingles" in the Mediterranean is now in a much improved condition.

The cemetery is at Mahon, chief city of Minorca, Balearic Islands. Mahon is located on a sheltered inlet about 150 miles southeast of Barcelona, Spain. It was here that *uss Forrest Sherman* (DD 931) and *Charles H. Roan* (DD 853) visited during their recent Med tour.

For many years during the first half of the last century Mahon was the Headquarters of the Navy's Mediterranean Squadron. Over the years some 28 U.S. Navymen came to be buried in the city's cemetery.

The site had no caretakers and was almost forgotten. Learning of this, volunteers from the two ships came forth in typical destroyerman manner and devoted about 250 man-hours to making the place shipshape.

Fenced in by an eight-foot-high stone wall, the cemetery is in the direct path of the winter floods, which sweep down the valley to the sea. To dispose of these waters a primitive drain of stone construction running under the cemetery has been built in the past. However, by this time the drain had dropped at one point and was blocked.

The *Sherman* and *Roan* sailors cleared the drain. They built up the walls, using the original stone blocks. In all, they held a field day on the place, clearing away scrub grass, tidying up paths, and removing rubble.

After clearing away the scrub and over-growth, it was possible to get a good look at the many tombstones. Some bore clearly legible inscriptions, other were without markings, some had "American Sailor Name Unknown" stenciled in black paint. Some graves had slate inscription tablets damaged beyond recognition.

The buried U.S. Navymen came from the frigates *Constitution*, *Congress* and *Constellation* and the ships-of-the-line *Delaware* and *Philadelphia*.

Three Ships, Three Rescues

For three Navy ships, rescues at sea were the order of business during a recent weekend.

In the Pacific about 1000 miles east of Hawaii was the Republic of China destroyer *Hsiang Yang*. Aboard was a Chinese lieutenant in desperate need of an appendectomy. *uss Los Angeles* (CA 135) reversed course, made rendezvous and high-lined the sick man aboard. There he spent nearly three hours on the cruiser's operating table for a successful operation.

In the Atlantic, off Greenland, were two Danish mining engineers adrift in a small boat in an iceberg-laden fjord. After eight days they were discovered by helicopters from *uss Atka* (AGB 3). Rescue vessels were directed to the area.

In the Med off Piraeus, Greece, two persons were adrift in a disabled powerboat. They were spotted by an officer aboard *uss Gainard* (DD 706). The ship took the craft in tow and delivered it safely to Piraeus.

Fire-Fighting by Helicopter

A new airlift-type dry chemical fire extinguisher is now in use at air stations and air facilities throughout the Navy. It was developed for BuWeps jointly by the Naval Research Laboratory and a commercial fire equipment concern.

The unit weighs 800 pounds, has a large nitrogen pressure cylinder and two 75-foot lengths of three-quarter inch hose. Its chemical is a dry-powder type—either sodium bicarbonate (CDC powder) or potassium bicarbonate (Purple K powder).

Though it can be mounted on a pickup truck, its main use will be for crashes occurring off the airfield. In such cases it, as well as fire fighters and rescue men, will be airlifted by helicopter to the scene of the crash.

The dry chemical, which is considered an excellent agent for quickly knocking down the flames, is helped by the downwash of the helicopter.

The chopper hovers over or near the crash, the downwash of the rotor driving the flames downward and away from the plane's cockpit area. Further, the rotor's downwash aids the firefighters and rescue men by deflecting the intense heat and dense smoke of aviation fuel fires.

Army Men Get a Taste of Navy

For one Army Reserve outfit it was Navy-Navy-Navy during their recent period of active service training.

The 410th Engineer Command (Amphibious Support) boarded USS *General G. M. Randall* (AP 115) at New York and arrived, soon after, at Hampton Roads, Va. This in itself was noteworthy, for it marked the first water-borne movement of an Army Reserve unit to summer training in Army Reserve history.

Taking their training at the Naval Amphibious Base, Little Creek, Va., the soldier-engineers observed and practiced the basic military skills of an amphibious operation. They were familiarized with the various ships and landing craft employed in landing and supplying the landing force. They took part in a landing on the beaches along Hampton Roads, coming ashore in amphibious tracked vehicles. And they loaded and lashed equipment aboard ship, debarked down the ship's side, and set up shoreside installations to support the assault.

As a result of their training at Little Creek, new training cycles have



HISTORICAL NOTE—LT John McGuire, USN (Ret.), recently resigned as manager of Truxtun-Decatur Naval Museum, explains rigging to visitors.

Retired Chief Is Manager of Truxtun-Decatur Museum

New manager of the Truxtun-Decatur Naval Museum is Casimer L. Kasey, HMC, USNFR. He replaces LT John McGuire, USN, (Ret.), who resigned recently because of ill health.

The new director transferred to the Fleet Reserve in December 1959. During a 20-year naval career, Chief Kasey served aboard five capital ships, plus several LSTs, and participated in the invasions of North Africa, Sicily and Italy.

LT McGuire retired from the Navy in 1947 after 32 years' active duty. In that time he advanced from apprentice seaman through the Warrant Boatswain grades to commissioned status. He served on more than 10 ships, and had

three hitches of recruiting duty.

Truxtun-Decatur Naval Museum is located at 1610 H street, N.W., just a stone's throw from the White House in Washington, D.C. A mecca for naval historians and anyone interested in the history and past glories of the sea services, it was established in May 1950 by the Naval Historical Foundation, a private, self-supporting organization dedicated to the preservation of America's maritime history.

Next time you visit Washington, Museum Manager Kasey will be happy to show you around the historic exhibits, ranging from John Paul Jones' recruiting poster for his ship *Ranger*, to the developing of seapower into the nuclear age.

begun at the Engineer Command's Reserve Centers—located chiefly in the New York City, Long Island, Binghamton, Albany and Watertown areas of the Empire State.

Drill Team Is On Its Toes

NAS North Island's Precision Drill Team has been organized less than a year, and made only ten competitive appearances, but in that short span it hasn't let much grass grow under its marching feet.

The 13-man outfit has already piled up 10 awards—seven first place, one second place, and two participation trophies—and recently topped

all its previous efforts by marching off with the 1960 California State Open Championship.

North Island racked up an overall average of 95.2 per cent out of a possible 100 in outdrilling teams from Naval Station Treasure Island, NAS Oakland, Stockton Reserve Fleet, Sixth Army Headquarters and the Sixth Army Signal Corps in the state meet at Santa Clara.

Team Captain Ken Kveseth, AD3, USN, also copped an individual trophy awarded to the outstanding senior drill captain.

Daniel Lucas, AO1, USN, is drill instructor of the marching unit.



MCB-3 SEABEES hold military training sessions on Okinawa. Rt: Tent over frame will protect precasts from rain.

Seabees Busy at Futema

The U.S. Marine Corps now has an air facility at Futema, Okinawa, thanks to three years' work by the Seabees of Mobile Construction Battalion Three. Although the construction will not be completed until the summer of 1961, the installation was commissioned in January 1960, and the main body of Marine Air Group 16 has already shifted its headquarters there from Japan.

Before construction started on this air base, which will house five Marine helicopter squadrons, the Seabees had plans—1000 sheets of them. They also knew that the installation would cost some eight million dollars and would require about 25,000 separate construction items.

The Seabees had a million dollars worth of equipment ready to do the job, plus some \$40 thousand worth of dynamite to help clear building sites.

The completed 1000-acre facility at Futema will have some 20 barracks, 10 BOQs, a mess hall and galley, a Marine Corps exchange, gymnasium, theater, chapel, infirm-

ary, three enlisted men's clubs, a communications building, five administration buildings, four hangars and a maintenance annex, an operations and control tower building, warehouses, a fire and crash building, a small-arms magazine and a complete petroleum and oil system. A \$50-thousand automatic sprinkler system will protect these buildings.

Futema's concrete supply and storage warehouse is built to withstand tropical rains and 140 mph typhoon winds. It has a shell (framework) of pre-cast concrete bents (The part of the frame which runs lengthwise—it generally supports both the lateral and vertical weight of the building), and the roof and wall panels are tied together with large poured-in-place concrete T beams. The end sections, which weigh 54 tons each, were among the largest pre-cast panels made on the island.

One of the most difficult construction jobs was the enlisted mess hall and galley. Although most of the local American and Oriental contractors agreed that a one-piece, 30-ton, 52-foot pre-cast frame could not

be raised in one piece, the Seabees did it.

The Seabees also built a network of electrical installations at Futema which includes a 69,000-volt, 40-ampere, main-line switching station and a master sub-station, both with 60-foot towers. Power is distributed not only to Futema, but also to nearby U.S. Army Nike sites and to a Marine Corps staging-out area being completed at Sukiran, some seven miles away.

Water for the Futema Facility comes from a high-level water reservoir at Sukiran. First the water travels through a 16-inch pipe, then is diverted through 11,000 feet of 12-inch pipe before it reaches the Air Facility.

The equipment operators (EOs) at Futema had one of the biggest jobs to do. They:

- Were responsible for the operation, refueling, repairing and maintenance of over 300 pieces of equipment used by the Seabees at Futema.

- Transported more than 500 Seabees daily on their 15-mile round

MOVING IN—Seabees of Mobile Construction Battalion Three man heavy equipment to move wall and roof panels.





MIX UP—Seabees guide cement bucket to make roof. **Rt:** Truck pours concrete among precast beams of a hangar.

trip to and from the construction site.

- Prepared the construction sites for 65 buildings.
- Provided adequate drainage systems for the construction site.
- Crushed some 144,000 tons of coral for construction material.

Most of the 65 buildings at Futema were prefabricated—but not pre-fabs as we generally think of them. Concrete slabs were poured in molds on the ground and, when ready, were lifted into place in one piece. In many buildings, such as the 20 barracks and the administration building, the entire shell was made of pre-cast concrete material. When MCAF Futema is completed, there will be more than 5000 pre-cast roof panels, 800 wall panels and 200 rigid pre-cast bents. If these roof panels were laid end to end, they would make a sidewalk eight feet wide and almost 20 miles long.

At times the Seabees adapted their equipment to special jobs. One problem involved lifting the concrete slabs from the molds. To do this job, they took standard lumber carriers

(sometimes called straddle trucks), widened them, and equipped them with vacuum lifts. The carriers would straddle the molds, lift the pre-cast units, and carry them to storage yards or construction sites.

One of the major problems in designing Futema was to provide typhoon protection for the Air Group's helicopters. The building had to be strong enough to withstand 140 mph winds which often sweep across the island.

Some 41,000 man-hours were spent building four hangars about 94 by 118 feet for this purpose. Apparently the Seabees were successful because the hangars have already withstood the powerful force of a typhoon.

Another busy group of Seabees were the riggers (EOs and SWs). The Futema project demanded skilled rigging crews for both the tilt-up and positioning of large pre-cast walls and covering panels.

Riggers lifted end wall units that weighed up to 60 tons and placed them into position. End units for the maintenance shop were 52 feet long.

The riggers' skill was also demonstrated when they erected the shell for a 212-by-35-foot barracks in three days. The Seabee EO's and SW's also erected steel aviation and mobile gasoline tanks, electrical transmission towers, switching stations, and the huge 35-foot sliding doors for the helicopter hangars.

The officers and men of MCB-3 are now working on the final phase of construction at Futema.

Fred W. Doby, JO1, USN.

Submariners Have Style Winner

The coverall created for the men of the Navy's *Polaris* submarines has won a Caswell-Massey Award for "Excellence in Design."

The award, one of several made annually, was in the Special Design category. It was presented to Mr. Seymour Lash, Branch Chief in the Clothing and Textile Division of the Naval Supply Research and Development Facility, who conceived and executed the *Polaris* suit.

Developed to conserve space, reduce the use of laundry facilities and improve submarine habitation, the

BIG LIFT—Eighteen vacuum pads lift precast panel. **Rt:** Precast units were poured in the forms in the foreground.





TIME RUNS OUT—Buzzards Bay Lightship will be among first replaced.

Light Towers to Replace USCG Lightships

A sight familiar to Navymen for many decades is due for a change. Lightships, swinging to the hook and marking dangerous coastal shoals or entrances to important harbors and estuaries, are scheduled to be replaced with skeleton structures of the Texas Tower type.

Like the lightships, the off-shore structures will be maintained by the Coast Guard and will be equipped with lights, fog signals and radio beacons. They will be of two types, manned and un-manned, the latter being controlled from the shore.

Aboard the manned towers will be living quarters for the crew of five Coast Guardsmen. The roof will act as a landing platform for helicopters.

The first two vessels to be replaced will be the Buzzards Bay Lightship, which guards the southern approach to Cape Cod, Mass., and the Benton Reef Lightship, which, located just off Rhode Island, stands watch at the eastern approaches to Narragansett Bay.

A study by the Coast Guard has shown the value of the skeleton-beamed off-shore towers used by oil and sulphur producers in the Gulf of Mexico and elsewhere. Other factors in the changeover to towers are lower maintenance costs, longer life spans, and the increasing age of the lightships.

Construction of the Buzzards Bay structure will start in 1961. Plans

are for it to be completed within a year. In time, all but two of the present 24 lightship stations will be replaced by light towers.

Skeleton light towers in relatively shallow waters, such as in the Florida Keys, have withstood hurricane winds and waves for almost a century.



NEW ISLANDS like above will take the place of most of the lightships now guarding harbors.

suit is made of dacron, rayon, cotton and nylon. Easy to launder, it dries rapidly without releasing much moisture into the submarine's closed atmosphere, and can be ready for use in a few hours. Only two sets of these coveralls will be carried by each crew member during a 60-to-90-day patrol.

Although the suit is made in one piece, it has the look of a shirt and trouser combination. The shirt portion is made of a dacron-rayon fabric, and the trousers are a dacron-cotton twill. Parts of the suit—around the waist, back and side areas—are in a stretchable nylon rib knit, making it possible for only three different sizes of the suit to fit almost anyone.

The result is a comfortable semi-fitted coverall which allows complete freedom of movement.

Touring Teachers

Two Chief Aviation Electronics Technicians are having a six-month "grand tour" of Europe that's saving the Navy more than 30 thousand dollars.

Normally assigned to the Naval Air Mobile Training Group at Memphis, Tenn., the traveling two are ATCs George M. Dain and William A. Lind. They left Memphis in June with 1000 pounds of luggage, and are saving the government money by visiting Spain, Italy, England, Morocco and Sicily to take a school to its students, instead of waiting for the Navy students to come to them.

Their luggage—made up of tools, mock control panels, electronic test equipment and text books—is, in effect, a mobile classroom for teaching Navymen overseas how to handle transistorized electronic equipment.

First stop on their tour was Port Lyautey, and after that came the Spanish-American Naval Base at Rota, where Dain and Lind conducted five of their two-week courses in transistor fundamentals. London, Naples, Sicily and the Azores were also on the itinerary the pair were scheduled to follow before returning to the United States.

The two-week course taught by Dain and Lind consists of 80 hours of technical and practical training in handling transistorized equipment. Each class is limited to 10 students.

By the time the two touring teachers were to return to their home base, they were slated to travel almost 11,000 miles and to instruct

nearly 250 students at various European bases.

The nearest school offering similar training is at Norfolk, Va., so Dain and Lind are saving the Navy the heap of money it would take to send the students there.

Spare Tires for Ships

Some of the ships of the Mine Force, Pacific Fleet, are now carrying a spare tire. You'll see them sporting the new addition on their fantails, but the shape is different and it's being used for a different purpose.

MINPAC's "spares" are really a new type of collapsible rubber fuel tank which increases the steaming range of ocean-going minesweepers by as much as 15 per cent.

Filled to its 2500-gallon capacity, the eight-foot by seventeen-foot by three-foot fuel cell closely resembles an inflated air mattress. A simple padeye-connected rigging is used to lash it in place on a minesweeper's fantail. It's inexpensive, requires no extensive ship alterations and, best of all, can be folded and stowed when not in use.

On long voyages in the past Mine Force ships have had to carry their spare fuel in 55-gallon drums. They cluttered up a good share of after deck space, were cumbersome and time-consuming to handle, and added significantly to the ship's magnetism—definitely not a good thing during mine-sweeping operations.

The sea-going spare tire has changed all that.

All-Navy Golf

ENS Jordan Ball, USN, stationed at the Richmond, Va., Naval Recruiting Station, is the 1960 All-Navy open golf champion.

ENS Ball toured the Army's long and beautiful Fort Ord, Calif., lay-out in rounds of 74-72-75-76, with his final 297 total giving him a two-stroke bulge at the finish over 1958 champ LTJG Rudy Boyd of NAS Pensacola, and LCDR Ben Hastings, medical officer of the Fleet Ballistic Missile submarine *uss Theodore Roosevelt*, SSB(N) 600, who wound up in a dead heat with 299's. LTJG Boyd posted a four to LCDR Hastings' five in a one-hole, sudden-death playoff to cop runner-up honors.

Tied for fourth with even 300's over the 72-hole, four-day grind, were LT Don Knight of 13 ND, and 14 ND's John Kalinka, ET1. LTJG



TIED UP—Two destroyermen pass line through ring on buoy and start it back to their ship to haul out the anchor chain in Narragansett Bay, R. I.

Tony Earle of the Special Weapons Facility, Yorktown, Va., and ENS Alan Gilson, representing Staff, 12 ND, deadlocked for fifth place with 302's, while another recruiter, Chief Personnelman John Babuka of NavCruitSta Albany, N.Y., shot a 305 for sixth.

In the Senior (age 45 and over) Division, meanwhile, LCDR Louis Anderson from NavSta Annapolis, Md., fired a 79 over the final 18 holes to overcome a five-stroke deficit and win the All-Navy Senior crown.

Staff 12 ND's LT Nancy Hollenbeck won the women's All-Navy title with rounds of 94-92-98, for a 54-hole total of 284.

USS Princeton's Pistol Expert

If the contestants at a recent National Rifle Association pistol match at the Los Angeles Police Academy could have foreseen what was about to happen, they probably wouldn't have let SSGT Donnie L. Romine, usmc, in the building.

When the dead-eye Marine finally laid his smoking pistols down he'd won 12 of 16 matches, and made off with practically all the loot.

Romine, a member of the Marine Detachment serving in the amphibious assault ship *uss Princeton* (LPH 5), has been firing competitively less than a year. Recently classified a sharpshooter, he reached his peak in the Los Angeles match—among other things copping the trophy for his

grand aggregate score of 2416x2700.

Other firsts racked up by the *Princeton* Marine were in the Center Fire Slow, Timed, Rapid, National Match Course and Center Fire Aggregate matches with both the .38 and the .45, and the Aggregate Slow Fire with the .22, .38 and .45.

Sailboat Racing Champs

The Read Cup, symbol of the British and U.S. Navy champions in sailboat racing, is on display at the headquarters of the Commander-in-Chief, Atlantic Fleet, in Norfolk these days, thanks to a group of officers from U.S. Second Fleet ships and Headquarters, CINCUSNAVEUR (Commander-in-Chief, U. S. Naval Forces, Europe).

They combined forces to down their Royal Navy counterparts in two, three-hour races over a triangular, 12-mile course at the Royal Albert Yacht Club in Portsmouth, England, to gain possession of the British-American Naval Sailing Trophy.

The Read Cup was devised and donated by its namesake, CAPT S. A. Read, CBE, RNR, in an effort to enhance sailing rivalry between naval officers of the two countries whenever and wherever an opportunity occurs.

A total of six boats were used in the races, three by each side. Four of them were 38-footers with 50 square meters of sail, while the other two were 26 and one-half footers of the Belmore class.

Brief news items about other branches of the armed services.

TOMORROW'S U.S. ARMY rifleman will be able to see farther and better, in the dark, to spot an enemy than his World War II counterpart. He'll do it with the T-1—a newly developed, lightweight "sniperscope" infrared gun sight, designed to expose night-hidden targets and to take the load off the rifleman's back.

Instead of the cumbersome, 28-pound WW II-model sniperscope and back-carried battery supply load, future infantrymen will carry a 13-pound unit. The power supply, miniaturized to one-eighth the size of the old version, will hook on the rifleman's cartridge belt.

Target image on the new sighter is twice as big as that provided by the old-style model, giving more positive identification of the quarry. It will also make it much easier to detect enemy camouflage attempts.

Teamed with modern infrared battle techniques, the T-1 will also give a marksman added protection against enemy fire. The WW II sniperscope, with its power supply permanently attached, emitted its own infrared signals, aiding enemy detectors in "zeroing in" on its user.

Now, a central infrared searchlight can spray a wide battlefield sector with its rays. A T-1-equipped rifleman could unhook his power supply and use only the lightweight receiver portion, keeping him hidden from enemy IR detectors.

The new scope has been designed for use with virtually every individual weapon now employed by combat infantrymen.

★ ★ ★

THE AIR FORCE BMEWS (Ballistic Missile Early Warning System) station at Thule, Greenland, is now in operation.

The Thule station is the first of three planned to provide early warning of ballistic missile attack. The other two sites are at Flyingdales in the United Kingdom and Clear, Alaska. At both of them work is progressing at, or ahead of, schedule.

The huge antennas for the sites will pick up a missile at a range of 3000 miles. The radars each require as much electricity as a small city does.



MUSHON—Army vehicles take off over Greenland icecap during operation *Lead Dog* to establish overland routes.



BIG BLAST—Light weight M55 weapons system developed by Army can fire potent rapid salvo of 45 rockets.

A NUCLEAR RESEARCH REACTOR capable of providing short pulses of intense nuclear energy will be installed next year at the Army's Diamond Ordnance Fuze Laboratory in Washington, D.C. It will be used to study radiation effects on parts of military equipment.

Actual location of the reactor, which will cost slightly less than \$1,000,000, will be in the Forest Glen section of the Walter Reed Army Medical Center, Forest Glen, Md. The installation will be known as the Diamond Ordnance Radiation Facility.

The TRIGA—Training Research Isotope (Production) General Atomic-reactor core will be suspended from a movable carriage which will permit equipment to be exposed in either a dry, shielded exposure room or in a water-filled pool. Lead shielding doors will separate the exposure room from the pool area. This will give access to the exposure room while the core is being used for other experiments in the pool.

The reactor core for the Radiation Facility differs from the standard TRIGA reactors. It will contain more fuel elements of a special design, in a new core configuration, and, in addition, the reactor will use water instead of graphite as a reflector.

★ ★ ★

THE AIR FORCE will put 17 Air National Guard communications and electronics installations and maintenance squadrons to work during active duty training periods next summer, assisting in the development of communications facilities at its ballistic missile and test sites throughout the U.S.

The two-pronged program will be aimed not only at providing ideal training to fit Air Guardsmen for their mobilization missions, but at extracting double value from the defense dollar as well. A majority of the Guardsmen will be well qualified for ground communications and installations work, since they are employed by telephone and telegraph companies and other electronics industries in civilian life.

Working directly under the Air Materiel Command, the ANG squadrons will perform many of the communications and electronics installation functions required by the Air Force in its missile and satellite programs.

The summer 1961 training missions will mark the first large-scale participation by ANG units in the

nation's missile and space efforts. Involved will be two communications maintenance and 15 GEEIA (Ground Electronics Engineering Installations Agency) squadrons.

★ ★ ★

ARMY SCIENTISTS have developed a distance measuring device which may benefit Arctic explorers and scientists in pinpointing their location.

Known as an *attenuation meter*, the device measures the atmospheric conditions which affect visibility.

These conditions produce optical illusions distorting the size and shape of objects which make it impossible to gauge the distance from one location to another. The meter measures the length of the path between the observer and the horizon.

The meter requires 110 volts AC and works somewhat like an exposure meter used by photographers, but is much more sensitive. One of its two photoelectric circuits measures the amount of light coming to the instrument from the distant horizon. The other circuit measures the brightness of the air path between it and a black spot. Both values are registered on a meter. From these values, the distance at which the same black spot could not be seen by the eye can be calculated.

In an earlier version, the Army's visibility meter was a bulky instrument measuring about 15 feet in length. The new type scheduled for further testing on the Greenland Ice Cap this summer is much more compact in size and can be carried easily in a snowcat or similar vehicle adapted for Arctic travel.

★ ★ ★

THE AIR FORCE PLANS to add more firepower to its F-105 *Thunderchief*, Tactical Air Command's newest globe-girdling tactical fighter, by arming it with the air-to-surface *Bullpup* missile.

It is developing a prototype launcher which will be mounted on pylons beneath the F-105's wing. Thus equipped, an F-105 pilot could launch *Bullpup* more than two miles away from a target. A radio-link guidance system controlled from the cockpit would steer the missile to its destination.



HOT SNOW?—Member of Army Chemical corps takes radiation fall-out readings on Greenland expedition.



NO MONKEY BUSINESS—USAF school at University of Kentucky teaches chimps how to 'operate' space capsule.

The present model of *Bullpup*, the GAM-83A, is fitted with a high explosive warhead. An advanced version, the GAM-83B, will be able to carry either a nuclear or conventional payload.

★ ★ ★

DUTY-ASSIGNMENTS-BY-NAME of Army enlisted personnel went into effect this fall. Long a procedure in Navy enlisted assignments, the new Army step is intended to centralize control of enlisted personnel resources, improve their utilization and assist in the continued automation of the Army's replacement system.

"Overseas returnees" will be the first affected, followed by those chosen for overseas service. The program will, eventually, include all assignments. Returnees from overseas will be given increased opportunities to state preferences in geographical location.

Also involved will be an increased equality in selections for overseas tours. Army-wide considerations for such assignments will point toward the man (of a given military occupational specialty and pay grade) who has the longest time in the States. In other words: "First back stateside, first over, overseas."

The new program has some important management features of benefit to the individual soldier. For example, a man in a surplus skill will be given an increased opportunity to get into a field where his additional skill is needed.

★ ★ ★

A 30-DAY FLIGHT TO THE MOON and back has been made by an Air Force captain and first lieutenant. The flight was a simulated one, however, and the officers never left Texas.

Latest in a series of simulated space flights, this was the third major test designed to show that the human body is capable of withstanding space frontier hardships.

In the preceding test two Air Force sergeants stayed in the test cabin for 13 days and 20 hours.

Home for the officers' venture was a small steel pressurized cabin measuring 8 by 12 feet. The cabin is at the U.S. School of Aviation Medicine, San Antonio, Tex.

Machines used for the first time in space cabin tests enabled the two officers to drink and reuse the same water and to breathe and re-breathe the same air.

THE WORD

Frank, Authentic Advance Information On Policy — Straight From Headquarters

• **APPLICATION FOR FLIGHT TRAINING**—If you want to go to flight training, now is your chance. Applications are desired from officers for classes that convene weekly at Pensacola, Fla.

Applicants must be less than 26 years of age at the time of application, must be physically qualified and must have a minimum of four semesters of undergraduate work at an accredited college or university.

You will find more details concerning qualification and the procedures for submitting your application in BuPers Inst. 1520.20A.

• **NAVY COMMENDATION MEDAL**—If you wear the Navy Commendation Ribbon, you now have the Navy Commendation Medal, not a Commendation Ribbon with Metal Pendant. The name of the award has been changed to avoid confusion.

In the past, if you were awarded a Letter of Commendation, it was either with or without a ribbon with metal pendant. Now you simply get a Letter of Commendation or a Navy Commendation Medal. It's a simple name change. The criteria for the Navy Commendation Medal are the same as those for the old Commendation Ribbon with Metal Pendant.

If you already have the ribbon with metal pendant it should be worn as before, but referred to as the Navy Commendation Medal. Also changed was the method of marking additional awards on the ribbon. If more than one commendation medal is awarded, a gold star should be worn on the ribbon in lieu

of another medal. In the past, additional awards have been marked with bronze stars.

More details may be found in SecNav Inst. 1650.1A change transmittal of 21 Sep 1960.

• **QUALS MANUAL**—*The Manual of Qualifications for Advancement in Rating*, NavPers 18068 (Revised), has been changed to cover the new rating of postal clerk and to bring the quals up to date for ten other ratings. The changes will be in effect for the February 1961 advancement examinations.

Postal clerk, a new General Rating, has been added to Group V—Administrative and Clerical. The other ratings for which the quals have been revised are: Yeoman, Personnel Man, Lithographer, Aviation Machinist's Mate, Aviation Fire Control Technician, Aviation Boatswain's Mate, Aviation Electrician's Mate, Aviation Structural Mechanic, Tradvman, and Dental Technician.

The revisions were made under Change No. 15 to the Manual.

• **REQUIREMENTS CHANGE FOR NAVCAD**—You no longer need to serve one year on active duty before you qualify to apply for the Naval Aviation Cadet Program.

The Chief of Naval Personnel has suspended the one-year requirement until 30 Jun 1961 so that more qualified enlisted men can enter the program.

At the same time, enlisted men are being encouraged to submit their applications for the NavCad Program in accordance with BuPers Inst.

1120.20B. The one year active duty change was published as Supplement One of that instruction, dated 26 Sep 1960.

• **EXTEND FOR BONUS**—If you're Regular Navy and extend your enlistment for two or more years—even one year at a time—you may now receive a bonus for it. The extensions will, however, count as a reenlistment when computing future reenlistment bonuses.

Under the old pay bill (section 207, Career Compensation Act of 1949), no reenlistment bonus was paid for a one-year extension of an enlistment. But if an enlistment was extended more than once, the extensions were considered a reenlistment and a reenlistment bonus was paid.

Under the new pay bill (section 208 of the same Act), however, a member was not entitled to a reenlistment bonus for a one-year extension or even two one-year extensions. He was entitled to a reenlistment bonus only for extensions of two or more years.

The Comptroller General of the United States has recently ruled that a bonus should be paid for two or more one-year extensions under the new pay bill.

Here's how the new pay bill has been interpreted by the Comptroller General:

• If you extend your enlistment for one year, you receive no bonus at that time. But, if you extend that same enlistment for the second time, you can get paid for the one year already served, plus the one for which you have agreed to serve. Should you then extend for a third one-year term, you are entitled to a reenlistment bonus for a three-year extension, less any money you have already received for extending that enlistment. In any case, the bonus is based on the rate of basic pay to



CHOP CHOP—ALL HANDS doesn't usually grow on trees. That's why we ax you to pass this copy on to nine others.

which you were entitled on the day your original enlistment expired.

• If you have already served one or more one-year extensions, you may now request a bonus for those you have served, plus those for which you have agreed to serve. Further, you may now elect to receive a bonus under the new pay bill even if you have already been paid for your extensions under the old pay bill. In this case, your bonus will be refigured and you will receive the difference.

SecNav Inst. 7220.37A, which announced the Comptroller General's decision, emphasized that regardless of whether a reelection is now made and additional payment is claimed, two or more one-year extensions will count as a reenlistment when figuring the number of reenlistments for future reenlistment bonuses.

• **POSTAL CLERKS SELECTED**—The new rating of Postal Clerk (PC) has taken a big step forward with the selection of personnel for the rating. Some 644 in number, the Navy's first PCs have been selected by a board of officers that met at the Bureau of Naval Personnel during August and September. (Names of the selectees were published as an enclosure to BuPers Notice 1430 of 28 Sep 1960.)

The new PCs are in pay grades E4 to E7. The majority had been Telemen before the phasing out of that rating, which began in 1957.

PCs operate Navy post offices. They perform postal counter work including sale of stamps and money orders; process incoming and outgoing mail; maintain mail directory postal equipment and security of postal effects and mail matter. They prepare and file correspondence and reports; load and unload vehicles in the transportation of mail; and operate, supervise, organize, establish or disestablish Navy post offices.

"Navy Postal Clerk" and "Assistant Navy Postal Clerk" are terms that refer to personnel who carry out duties in a Navy post office. These terms apply to individuals specifically designated as such. Commanding officers will utilize members of the new Postal Clerk rating in postal billets whenever practicable. Where members of the Postal Clerk rating are not available, commanding officers will designate men of other ratings to serve as Navy Postal Clerks or Assistant Navy Postal Clerks. Further details of the rating

change are listed in BuPers Instruction 1440.26.

• **LAY LEADERS**—Religious lay leaders are an official part of the Navy, and fill a valuable role in smaller ships and units which do not have full-time billets for chaplains. Although these men have conducted religious services aboard Navy ships for many years they have had few guide lines to follow.

The Chaplain's Division at the Bureau of Naval Personnel realized this and, on 22 Sep 1960, BuPers Inst. 1730.6 was issued to provide these guide lines. The following regulations for religious lay leaders were established:

Lay leaders will conduct an orderly service and will refrain from formal preaching, specialized counseling and other activities which are normally only conducted by an ordained minister. Lay leaders may not administer sacraments aboard naval ships or activities.

Offerings will not be taken at lay conducted services.

Commanding officers have been instructed to insure the selection of lay leaders who are well qualified and devoted men. Particular care in screening personnel will avoid the possibility of selection of men who might use their positions as lay leaders to expound original theories or singular views.

Chaplains will assist lay leaders whenever possible by consultation, instruction, and by furnishing ecclesiastical supplies. Further information about this program may be found in BuPers Inst. 1730.6.

• **CONUS TRAVEL CUT** — Alnav 38 bans all shore to shore (inside CONUS) rotation for the remainder of the fiscal year.

There are exceptions. Your transfer will become effective if the move is directly related to Fleet readiness; if your orders were issued before the Alnav was issued; if training or the STAR program is involved; or if the move is humanitarian or at no cost to the government.

Also unaffected is the regular Sea-vey-Shorvey rotation program.

Most of those affected by the new order will be officers finishing up a tour at an installation and scheduled for transfer to another activity within the United States.

Shortage of travel funds was the reason behind the directive.

QUIZ AWEIGH

Flag customs, the 19th Century Navy, and rating groups are the subjects of this month's quiz.

1. The Navy's general (or general service) ratings number more than 60 —divided into 12 rating groups of various size. Four of the groups are formed of just one rating: Group III—Electronics Technician; Group X—Medical; Group XI—Dental; Group XII—Steward. Group IV (Precision Instrument) has just two ratings, while there are but three ratings in Group VI (Miscellaneous). What are these five ratings in Groups IV and VI.



2. The 19th Century was a history-packed one; and the U.S. Navy wrote some colorful pages in that century's history. Shown below are some years and some events of that century. See if you can pair them off.

1802 — (a) Commodore Perry secures trade agreement with Japan.

1838 — (b) Navy squadron to "Med" in war against Tripoli.

1847 — (c) Landing party was bushwhacked in Samoa.

1854 — (d) Amphibious landing at Vera Cruz, Mexico.

1899 — (e) Navy's explorations (under Wilkes) begin in Pacific/Antarctic ocean areas.



3. Full dressed ships usually display the national ensign at the flagstaff and at each masthead. The chief feature, though, is the "rainbow of signal flags" running from the foot of the jackstaff to the masthead and then to the foot of the flagstaff. What are the two U.S. national anniversaries on which commissioned ships not underway regularly full dress ship? Page 55 has the answers if you don't.

THE BULLETIN BOARD

Survivor's Annuity Protects Your Family After You Retire

IF YOU HAVE YOUR Emergency Data Form filled out properly your wife is assured an income in the event of your death while on active duty. This costs you nothing. If you want this same assurance *after you retire*, however, you should take advantage of the Uniformed Services Contingency Option Act of 1953.

This protection to your family costs you nothing now and only a small part of your retirement pay after you hang up your hat.

The annuity plan provides a set income for dependents of the Navyman who dies after retirement, provided he has signed up for the program. The amount of the monthly check depends on the amount specified (or "invested") by the Navyman, and it will continue until his wife dies or remarries or until his children reach the age of 18 or marry.

Here's how the plan works. You will automatically be notified by your CO and furnish a copy of NavPers Form 591 some time after you complete 17 years' service for pay purposes. On this form you must state the option you desire, or state that you do not wish to participate in the plan. In either case, you will be told how to go about it. If you want to participate in the program, you must complete this form before you finish 18 years' service for pay purposes.

You should consider this plan even though you have no dependents at the present time. Executing an option will do you no harm and would protect your dependents if you should acquire one or more while still on active duty. Deductions are not made until you actually retire (or start drawing retainer pay), and even then, **ONLY** if you have dependents.

If, on the other hand, you do **NOT** take one of the options, and after you complete 18 years' service, do acquire dependents, you will be ineligible to participate in the program. The act contains provisions which allow you to modify or revoke your option while on active duty.

All-Navy Cartoon Contest
C. J. Ortega, DMISN, USN



"You should have seen him when he read
'It Came from Mars!'"

You may select one or more of four basic options. Under the act, your dependents can receive a monthly check of one-eighth, one-fourth, or one-half of your reduced retired pay (retirement check after your share of the annuity plan is deducted). Here are the basic options:

1. *Annuity for your widow*—Payable to, or in behalf of, your widow, until her death or remarriage.

2. *Annuity for a child or children*—Payable to, or in behalf of, surviving child or children, as long as there

is at least one surviving child unmarried and under 18 years of age. Where there is a child unmarried and over 18 years who is incapable of self-support because of mental or physical defects, the annuity would end upon marriage of such a child, or upon his death or recovery.

3. *Annuity for both*—Payable to, or in behalf of, your wife and children. Ends upon death or remarriage of your wife, or if later, when your children are married or turn 18 years old. If there is a mentally defective or physically incapacitated child unmarried and over 18, the annuity would end upon his marriage, recovery or death.

4. *Option in case you outlive your beneficiaries*—This may include the terms of either Options 1, 2, or 3 (or the combination of Option 1 and 2) with the added provision that no further reduction will be made in your pay should your beneficiary (or beneficiaries) die before you.

Another choice is also provided. You may elect a combination of the above options which will provide benefits to your widow only, and one providing benefits to your children only (option one combined with option two), if the total amount of the benefits doesn't exceed one-half of your own reduced retired pay.

Here are two examples of how the option plan can work:

• Suppose a 48-year-old commander has over 26 years' service for pay purposes and his wife is 43 years old. He has no disability and his youngest child is 10 years old. His gross retainer pay is \$503.75 a month. He selects Option 3 and 4, and wants his family to get one-half of his reduced retainer pay. Reduction of the commander's regular retainer pay would be \$61.05, which guarantees his wife or surviving child \$221.35 a month in case of the commander's death. With this added protection for his family, the commander would still receive \$442.70 a month retainer pay.

• The same opportunity is available to the retiring enlisted man.

All-Navy Cartoon Contest
W. R. Maul, CT1, USN



"Alright, we'll compromise. You'll get your way and I'll get to keep my big mouth shut!"

Let's take a non-disabled CPO for example. With over 22 years' service for pay purposes, this chief is 40 years old and his wife is 37. They have an eight-year-old child. He selects options 3 and 4, with one-half of his reduced retainer pay going to the eligible survivor. His retainer pay is reduced by \$16.38—this leaves him \$176.12 a month—and it guarantees the eligible survivor \$88.06 a month.

Since the life expectancy of a disabled man is usually less, he must contribute more per month to guarantee his survivors the above amounts.

Although the general rule for the annuity plan says you must complete your option form after completing 17 years, but *before* you complete 18 years' service for pay purposes, there are two administrative exceptions.

If you have less than 18 years' service for basic pay purposes, and are placed on the temporary disability retired list, you must submit an election within 30 days after you select the method of computation of retired pay, or receive your official notice that you are being retired.

Also, if you are in a "missing" or "missing-in-action" status when the 18th year deadline passes, you have six months in which to execute an option after you return to U.S. Navy jurisdiction.

After you select the options under the annuity plan you may change your options or revoke the plan altogether at any time before you retire. But, the modification or revocation will not be effective if you retire with pay within five years after you make the modification or revocation. If you have a change of dependents before you retire, you may make a name change without its being considered a modification. Once you are retired, however, no further changes may be made in your options or your dependents, and you will not be allowed to drop the program. Even before you retire if you revoke the plan it is lost to you. You can never again be covered by the Contingency Option Act. Any new dependents (if you remarry, or additional children are born) you acquire after you retire cannot be covered by this act.

There is also one exception to the rule which says once you make a

modification or revocation, you must serve five years before that change or modification may become effective. If you would have been expected to serve five years after a modification or revocation was made, but are released because of the Navy Hump Law, Public Law 86-155, the change will be made regardless of time served.

The annuity plan, brought into effect in 1953, is non-profit, and in the average case the total amount collected by your survivors will be greater than the amount you alone would have received if you had not elected to participate. Yet, the total cost to the government, worked on an "actuarial basis" is approximately the same.

More details about the contingency Option Act are listed in BuPers Inst. 1750.1C.

What About the Other Survivor Benefits

Before you accept or reject the Contingency Option Act of 1953, look over these survivor benefits. As

you will see, most of these benefits end when you leave active duty. The Contingency Option Act, however, offers protection that can offset some of these losses.

• **Death gratuity**—This provides a lump-sum payment for the widow, children, parents, brothers or sisters of *military personnel who die while on active duty, active duty for training, inactive duty training, or within 120 days after discharge or separation if death results from service-connected causes as determined by the Veterans' Administration.* When computing this payment, figure six times the monthly rate of all items of pay, but not allowances. The minimum payment will be \$800 and the maximum \$3000.

• **Dependency and Indemnity Compensation for Widow**—This Dependency and Indemnity compensation is paid by the Veterans' Administration for death in line of duty, *on active duty, active duty for training, inactive duty training, or later if as a result of a service-connected disability.* Under this plan, the widow may

WHAT'S IN A NAME

Antarctic Flight Desk

In this age of jet flight you can step up to a counter in practically any airport and check yourself and your baggage through for almost any destination.

If you're headed for the bottom of the world, however, there's only one spot you can do it from—the Antarctic Flights service counter in the Christchurch, N.Z., International Airport.

An element of Task Force 43 (Operation Deep Freeze) and operating under the supervision of the OinC of Naval Advance Headquarters, Christchurch, the service counter is staffed both by Navymen and by airport specialists from the U.S. Air Force's 1710th Aerial Port Squadron.

Intensive advance planning for each incoming flight, and close cooperation with New Zealand authorities make this unified crew so efficient they can process passengers with bag and baggage in a fraction of the usual time. Such top-drawer red tape slicing enables the service counter to funnel more than 4000 men, and tons of baggage and equipment into and out of Antarctica each year.

Antarctic Flights counter stands cheek-by-jowl with one serving Tasmania and

Australia. The two work in complete harmony, and try to arrange their schedules so that their arrivals and departures don't coincide.

There can be an occasional mix-up, though. More than one Australia-bound traveler has turned pale and fled the scene in more than a little disorder upon discovery that he was in danger of being cleared for a flight south—way south.



receive a monthly check of \$112, plus 12 per cent of the basic pay the service member was receiving at the time of his death. This check will continue for the balance of the widow's life or until she remarries. This sum is payable even though the widow is employed or has income from another source. (If deceased serviceman has a widow and children, income for the children will come from Social Security, which is discussed in a later paragraph.)

(1) For children—If there is no widow, or none eligible because of remarriage, the VA will make monthly payments to the children, until age 18, at the following rates: one child, \$70 a month; two children, \$100 a month; three children, \$130 per month; plus \$25 a month for each additional child. Payments to children will be made in equal shares. If an orphaned child is attending school at an approved educational institution when he reaches age 18, the monthly check will not only continue until he is 21, but will be increased by \$35 a month. Children are eligible for additional income from Social Security.

(2) For parents—Compensation for parents is based on their current annual income. It ranges, for example, from \$75 to \$15 per month for income of \$750 to \$1750 annually for a single parent and from \$100 to \$20 a month in relation to annual income of \$1000 to \$2400 for both parents.

• **Social Security Payments**—Since 1 Jan 1957, all active duty Navy-men have been covered under the Social Security Program. The amount of money you may receive when 65 years of age or your survivors may receive should you die on active duty depends on your average monthly wage. Once you leave active duty you may or may

All-Navy Cartoon Contest
J. F. Melvin, HM1, USN



"I don't believe that he's generous. I think he's just getting rid of his old stock."

not be covered by Social Security depending on the civilian job you get, and how long you have already paid into the program. BuPers Inst. 1741.10A explains the program, and a separate article about Social Security will be published in a future issue of ALL HANDS. In the meantime, here are the benefits for which you are eligible as an active duty Navyman.

Social Security provides a monthly income for a widow with children or for children alone, or for a widow at age 62, or 65 for dependent parents, or will provide income for the service member when he reaches age 65. This is in addition to military retired pay.

The Social Security benefits to a widow with a child stop when the child is 18 years old. If the child becomes incapable of self-support before turning 18, the VA will continue the check and pay an additional sum of \$70 a month as long as

the child is incapable of self support.

Social Security benefits are based on the average wage of the service member. Earnings from Social Security-covered civilian employment are also included in the average wage figure.

The table on this page gives examples of Social Security benefits which are payable to the serviceman at age 65 or to his survivors in the event of his death:

• **Funeral expenses, active duty**—

In addition to expenses of preparation, encasement, and transportation of the remains, which are paid by the Navy, further expenses of funeral and burial not to exceed \$200 may be paid when interment is made in a private cemetery. If the remains are consigned to a funeral director before interment in a national cemetery, an amount not to exceed \$125, or where remains are consigned directly to a national cemetery, an amount not to exceed \$75, may be allowed for services not duplicating those furnished by the Government.

• **Funeral expenses after retirement or release from active duty**—A

sum not to exceed \$250 may be paid as reimbursement for burial expenses. The veteran must have had wartime service or service during the Korean conflict. If the veteran has had only peacetime service, he must have been receiving disability compensation at the time of death or must have been discharged or retired for disability incurred in line of duty. The survivor must apply for this benefit from the nearest Veterans' Administration Office.

• **Headstone or memorial marker**—

A headstone or grave marker for the unmarked grave of a member of the Navy who dies on active duty, or for any veteran whose last active service ended honorably, is furnished free by the Department of the Army. A headstone or grave marker may also be obtained to commemorate death in service of a member of the Navy whose remains have not been recovered or identified, or were buried at sea. Application should be made to the Office of the Quartermaster General, Department of the Army, Washington 25, D.C.

In short, survivor benefits help protect your family while you are on active duty; the Contingency Option Act continues beyond that point.

OLD-AGE BENEFITS or SURVIVOR BENEFITS

Average monthly earnings	Workers' monthly benefit	Worker and wife	Widow (Age 62), child, or parent	Widow and child	Widow and two children
\$110	\$ 65.00	\$ 97.50	\$48.80	\$ 97.60	\$ 97.60
150	73.00	109.50	54.80	109.60	120.00
210	86.00	129.00	64.50	129.00	168.90
250	95.00	142.50	71.30	142.60	190.10
300	105.00	157.50	78.80	157.60	210.20
350	116.00	174.00	87.00	174.00	232.00
400	127.00	190.50	95.30	190.60	254.00

Here Are the Straight Facts on the Story of COLA and HOLA

ONE OF THE LEAST UNDERSTOOD, or most misunderstood, subjects related to military pay is station allowances.

Briefly, these are payments made to Navymen (as well as other service personnel) on duty outside the U.S. to defray the differences between the average costs at a specific overseas station and the average stateside costs—when the overseas costs are greater. If the overseas costs are less than the stateside costs, there are no station allowances.

In general station allowances are payable when (1) quarters are not available to an unaccompanied Navyman or (2) his family is with him and no quarters are available for them or (3) messing facilities are not available to him or his family if they are with him or (4) a man not accompanied by his family is authorized to mess separately.

Two types of station allowances are *Cost-of-Living Allowance* (COLA) and *Housing Allowance* (HOLA).

Cost-of-Living Allowance — COLA represents the relative difference between all living costs (less housing) for naval personnel in the United States and similar living costs at the overseas location. The difference is shown in the form of an index for the overseas location. The index for that location, assuming that a COLA is authorized, will be anywhere from 102 to 198. The base index of 100 represents the United States as a whole.

The following steps are taken to arrive at the station's index: At the overseas location the prices of goods and services are determined at commissaries, ships stores ashore, post exchanges and Navy exchanges, as well as at commercial outlets (grocery stores, clothing stores, mail order houses and public markets). The overseas location's prices are compared with prices at stateside exchanges, commissaries and commercial outlets. Much of the stateside information is provided by the Bureau of Labor Statistics.

In line with this comparison, estimates are made of the relative importance of the various sources of supply. Using clothing as just one example, what per cent is bought locally at government outlets? What

per cent is bought locally at commercial outlets? What per cent is ordered from the States?

Expenditure weights form another factor that enters into the index. Here are weighed the relative importance in the family budget of food, clothing, recreation, medical care, transportation and other factors. At the overseas location, for instance, there may be no government medical facilities available. On the other hand, free recreational facilities may be present in large measure.

The differences in volume of purchases brought about by the climatic, economic, cultural and other aspects peculiar to a particular overseas location are also considered. Individuals living in Alaska or Newfoundland, for example, would spend —on the whole—far more on clothing, on a year-around basis, than those in tropical climates. For another example, automobile owners living in a relatively underdeveloped area would find the wear and tear on their automobiles and tires much

greater than if they were in a location with well paved roads.

Housing Allowance — HOLA is intended to compensate the Navyman for the greater costs of rent, utilities and "moving-in costs." The housing costs at the overseas location are compared with the standard basic allowance for quarters (\$51.30, \$77.10 or \$96.90). A little figuring shows that this often makes for a rather favorable HOLA, because the monthly rent paid stateside is, in most cases, greater than the BAQ.

"Moving-in" or initial occupancy costs are factors figured into HOLA. Such costs are those brought about in bringing a residence up to American standards. Improvements in the plumbing, electrical system and gas and heating installations and painting, papering, plastering, screening and shelving are included.

The initial costs are divided by the number of months of the average overseas tour at the location. This amount is combined with the average monthly rental costs and utilities costs by pay grade to obtain

STATION COST OF LIVING ALLOWANCES (DAILY) LOCATIONS WHERE THE COST-OF-LIVING INDEX IS 102

GRADE	MEMBERS WITHOUT DEPENDENTS	MEMBERS WITH DEPENDENTS				
		1 Dependent	2 Dependents	3 Dependents	4 Dependents	5 or more Dependents
O-10	\$0.35	\$0.40	\$0.45	\$0.45	\$0.50	\$0.50
O-9						
O-8						
O-7						
O-6	.35	.40	.45	.45	.45	.50
O-5	.30	.35	.40	.40	.40	.45
O-4	.25	.30	.35	.35	.35	.40
O-3	.25	.30	.30	.30	.30	.35
O-2	.20	.20	.25	.25	.25	.30
O-1	.15	.20	.20	.20	.20	.20
W-4	.25	.30	.30	.30	.35	.35
W-3	.20	.25	.25	.30	.30	.30
W-2	.20	.25	.25	.25	.30	.30
W-1	.20	.20	.25	.25	.25	.25
E-9	.20	.25	.25	.30	.30	.35
E-8	.20	.25	.25	.25	.30	.35
E-7	.15	.20	.25	.25	.30	.30
E-6	.15	.20	.20	.25	.25	.25
E-5	.15	.15	.20	.20	.20	.25
E-4	.10	.15	.15	.15	.20	.20
E-3	.10					
E-2	.10					
E-1	.10					

THE BULLETIN BOARD

an average over-all monthly housing cost. When the average BAQ for each pay grade is subtracted from the over-all housing costs, the difference is the housing allowance. It is not a monthly figure, however.

Instead, it is divided by 30 and expressed as a per diem.

The present system of COLA and HOLA replaced, on 1 Feb 1959, the older system of station allowance for subsistence and station allowance

for quarters. In the newer system there is much more variety in the amount of payments. COLA Index 114 (which accompanies this article) shows 110 different payment entries. Under the older system there were but four payment entries: officer with dependents, officer without dependents, enlisted with dependents, enlisted without dependents.

A similar four-part breakdown also applied to the older quarters allowance. Under the present system—though still based on “with dependents” and “without dependents”—there is now a tabulation for each pay grade.

Here's the background on station allowances. Briefly stated, station allowances are carefully computed amounts paid to overseas personnel to equalize the costs of differences between all elements of stateside living and overseas living.

Station allowances are not paid to compensate for duty at a remote location, or a location with few off-station facilities, or a station subject to unpleasant weather most of the year. Nor are they paid for representing the United States in a foreign area.

Allowances for each location are reviewed semi-annually and are subject to change at any time.

Station allowances are established by the Per Diem Travel and Transportation Committee. Better known as the Per Diem Committee, it was created in 1950 to carry out certain provisions of the Career Compensation Act of 1949.

Operating as an independent agency under the broad policy control of the Secretary of Defense, its members are of the level of Under Secretary or Assistant Secretary of the Army, Navy and Air Force. Equivalent officials of the Treasury (for the Coast Guard), Commerce (for the Coast and Geodetic Survey) and Health, Education and Welfare (for the Public Health Service) take collateral action on all committee determinations. *Joint Travel Regulations* is the committee's publication.

Most of the day-to-day work is carried out by an advisory panel comprising an officer of each of the seven uniformed services and a civilian staff. Both the group and staff are headed up by an executive officer in pay grade O-6. This officer

LOCATIONS WHERE THE COST-OF-LIVING INDEX IS 150

GRADE	MEMBERS WITHOUT DEPENDENTS	MEMBERS WITH DEPENDENTS				
		1 Dependent	2 Dependents	3 Dependents	4 Dependents	5 or more Dependents
O-10 } O-9 } O-8 }	\$8.40	\$10.50	\$11.00	\$11.55	\$12.10	\$12.90
O-7	8.15	10.10	10.60	11.15	11.70	12.25
O-6	7.35	8.95	9.40	9.90	10.40	10.95
O-5	6.60	7.95	8.40	8.85	9.35	9.85
O-4	6.25	7.50	7.90	8.35	8.85	9.35
O-3	5.65	6.75	7.15	7.60	8.05	8.50
O-2	4.60	5.40	5.80	6.20	6.60	7.00
O-1	3.65	4.35	4.65	5.00	5.30	5.55
W-4	5.90	7.00	7.40	7.85	8.30	8.80
W-3	5.35	6.30	6.70	7.10	7.55	8.00
W-2	4.75	5.65	6.00	6.40	6.80	7.25
W-1	4.50	5.30	5.80	6.05	6.45	6.85
E-9	5.00	6.10	6.65	7.25	7.95	8.65
E-8	4.65	5.70	6.20	6.80	7.45	8.15
E-7	4.30	5.25	5.80	6.35	6.95	7.60
E-6	3.90	4.70	5.20	5.75	6.30	6.80
E-5	3.45	4.20	4.65	5.10	5.55	5.95
E-4	2.90	3.55	4.00	4.30	4.65	5.00
E-3	2.45					
E-2	2.05					
E-1	2.00					

LOCATIONS WHERE THE COST-OF-LIVING INDEX IS 198

O-10 } O-9 } O-8 }	\$16.45	\$20.55	\$21.60	\$22.65	\$23.75	\$25.30
O-7	15.95	19.75	20.75	21.80	22.90	24.00
O-6	14.40	17.50	18.45	19.40	20.40	21.50
O-5	12.95	15.55	16.40	17.35	18.30	19.30
O-4	12.25	14.65	15.50	16.40	17.30	18.30
O-3	11.10	13.20	14.00	14.85	15.75	16.65
O-2	9.00	10.60	11.35	12.10	12.90	13.75
O-1	7.20	8.50	9.15	9.80	10.40	10.90
W-4	11.50	13.70	14.50	15.40	16.25	17.20
W-3	10.45	12.40	13.15	13.95	14.80	15.70
W-2	9.35	11.05	11.75	12.55	13.35	14.20
W-1	8.80	10.40	11.35	11.85	12.60	13.45
E-9	9.75	11.95	13.05	14.25	15.55	16.95
E-8	9.10	11.15	12.20	13.35	14.60	15.95
E-7	8.45	10.30	11.30	12.40	13.60	14.90
E-6	7.60	9.25	10.20	11.20	12.35	13.35
E-5	6.70	8.20	9.05	10.05	10.85	11.70
E-4	5.70	6.95	7.80	8.40	9.05	9.80
E-3	4.80					
E-2	4.05					
E-1	3.95					

is presently a Navy captain, but the position is rotated among the Army, Navy and Air Force.

A good part of the staff's work deals with reducing to tables a mass of rough statistical material in the form of semi-annual reports from 84 countries. The Committee members not only deal with reports coming in; they or their representatives also go out and get a first-hand look at overseas locations, and make changes accordingly.

In one 20-month period committee representatives visited locations in South America, Alaska, France, Italy, Greece, the United Kingdom, Scandinavia, the Low Countries, the Middle East, Ethiopia and the Southwest Pacific as far as Thailand.

To illustrate what we mean, on the next few pages are HOLA figures for a group of representative locations. Owing to space limitations only a few locations are listed. COLA indexes for the representative locations are also given. There are 48 separate indexes but only three are listed in their entirety, again because of space limitations. These figures are from Appendix B and C of *Joint Travel Regulations*—and are subject to change at any time.

Representative Samples

STATION AND PER DIEM ALLOWANCES TAIPEI, TAIWAN

Cost of Living Index	104
Travel Per Diem Allowance	\$14.00
Housing Allowance (Daily):	

Grade	Without Dependents	With Dependents
O-5 thru O-10	\$0.00	\$1.55
O-4	0.00	1.65
O-1 thru O-3	0.00	1.90
W-4	0.00	1.65
W-1 thru W-3	0.00	1.90
E-7 thru E-9	.90	1.75
E-6	.70	1.45
E-5	.55	1.45
E-4	.45	1.45
E-1 thru E-3	.45	

BAHAMA ISLANDS, WEST INDIES

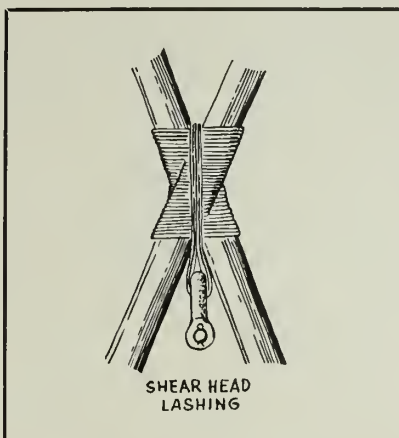
Cost of Living Index	104
Travel Per Diem Allowance	\$15.00
Housing Allowance (Daily):	

Grade	Without Dependents	With Dependents
O-1 thru 1-10	\$0.65	\$1.55
W-1 thru W-4	.65	1.55
E-4 thru E-9	.55	1.75
E-1 thru E-3	.55	

KODIAK, ALASKA

Cost of Living Index	114
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Grains of Salt—



Travel Per Diem Allowance	
Gov't Quarters Available	\$11.00
Gov't Quarters Not Available	17.00
Housing Allowance (Daily):	

Grade	Without Dependents	With Dependents
O-2 thru O-10	\$2.10	\$3.85
O-1	2.10	4.15
W-1 thru W-4	2.10	4.15
E-4 thru E-9	1.05	4.15
E-1 thru E-3	1.05	

LONDON, UNITED KINGDOM

Cost of Living Index	102
Travel Per Diem Allowance	\$15.00
Housing Allowance (Daily):	

Grade	Without Dependents	With Dependents
O-6 thru O-10	\$2.30	\$3.85
O-5	2.10	3.50
O-4	1.75	2.90
O-3	1.65	2.75
O-2	1.45	2.40
O-1	1.35	2.25
W-4	1.75	2.90

All-Navy Cartoon Contest
G. W. Everett, IC3, USN



"Man, just think of it . . . two more days and I'll be a civilian!"

W-3	1.65	2.75
W-2	1.45	2.40
W-1	1.35	2.25
E-7 thru E-9	1.15	1.90
E-6	1.00	1.65
E-5	.95	1.55
E-4	.85	1.45
E-1 thru E-3	.85	

NAPLES, ITALY

Cost of Living Index	106
Travel Per Diem Allowance	\$12.00
Housing Allowance (Daily):	

Grade	Without Dependents	With Dependents
O-8 thru O-10	\$1.75	\$2.90
O-7	1.55	2.60
O-6	1.45	2.40
O-4, O-5	1.30	2.10
O-1 thru O-3	1.15	1.90
W-4	1.30	2.10
W-1 thru W-3	1.15	1.90
E-7 thru E-9	.70	1.15
E-6	.65	1.05
E-5	.55	.95
E-4	.55	.90
E-1 thru E-3	.55	

Medical Service Corps Commissions Open to HM and DT Personnel

If you're a hospital corpsman or dental technician first class or senior, if you've been E-6 or higher for at least one year, and can meet certain educational and other standards, you may be eligible to apply for a commission as an Ensign in the Medical Service Corps, 2305 (Supply and Administration).

The program is open to both men and women between the ages of 21 and 31-and-one-half. Maximum age can be adjusted on a month-for-month basis for earlier active military service performed, up to 36 months.

In addition to meeting the basic eligibility requirements for all OCS candidates, you must score 40 or better on the OQT or WOQT Form 7W, or have a GCT score of 63 or more. The educational standard is at the two-year college level—a requirement which may be met by having completed 60 semester hours of college work at an accredited college or university, or by having satisfactorily completed the USAFI 2CX test before 1 Jan 1954. However, even if you do not meet all the educational standards, your CO is authorized to forward your application if you are considered outstandingly qualified in all other respects.

Policy Revised on Separation Of Officers After Making Permanent Change of Station

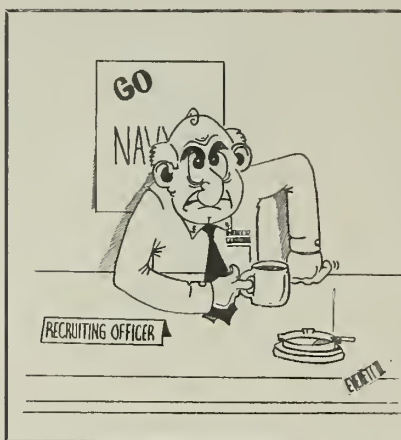
Policies on the resignation of officers have been revised to save the expense of transportation that used to be lost when an officer left the service shortly after completing a permanent change of station.

From now on, unless a genuine hardship exists, or the officer concerned gives official notice of his intent to resign before he executes his transfer orders, he will ordinarily have to complete one year of service or a normal overseas tour at his last active duty station. The new requirement is set forth in SecNav Inst. 1920.3B, which applies to all officers of the Regular Navy and Naval Reserve except officers of the Medical and Dental Corps.

Officers of the U.S. Navy serve at the pleasure of the President without any terminal dates set for their commissions. To maintain a sound officer corps, the Secretary of the Navy, under his authority to act for the President, establishes the criteria he considers necessary to cover voluntary terminations of officer status.

Under the latest SecNav Instruc-

All-Navy Cartoon Contest
G. W. Everett, IC3, USN



"It may please you to know son, that I am referred to as Chief... Not "Daddy-O!"

tion on the subject, male officers of the Regular Navy who submit their resignations may normally expect favorable action on their requests if they have completed the four years' active commissioned service required of officers who hold permanent commissions, plus any additional service requirements they have incurred.

Periods of advanced training or graduate instruction are considered

part of the four years of "basic required service." Obligations incurred as a result of that training or instruction, except in the case of flight training, are figured as additional service.

The additional service for flight training will follow the completion of that training in the case of permanent USN officers (including those who become permanent after they have begun flight training). The current additional service obligations for flight training are: two years for officers who completed their basic flight training before 1 Jan 1958; and three-and-one-half years for officers who completed their basic on or after that date. In either case, the total service must meet the minimum service requirement of four years.

Besides meeting the basic and additional service requirements, an applicant will normally have to fulfill a total service obligation for his resignation to be approved. If he was commissioned USN on or after 9 Aug 1955, and his total active and inactive commissioned service is less than six years, favorable action on his resignation will hinge on his acceptance of a commission in the Naval Reserve. If he was commissioned before 9 Aug 1955 the six-year figure is upped to eight.

Male Naval Reserve officers can normally expect favorable action on their resignations if they have completed their obligated active duty and their six- or eight-year totals of active and inactive commissioned service (depending again on the 9 Aug 55 cutoff date).

In the case of women officers, either Regular or Reserve, resignations will normally be accepted now upon the completion of two or more years of active commissioned service, plus any additional service obligations incurred in connection with specialized training. Married USN women officers will not normally have to accept Reserve commissions to have resignations approved.

Temporary and warrant officers, who wish to revert to their permanent enlisted grades to continue on active duty as enlisted men or to be discharged upon the expiration of their enlistments, will normally receive favorable consideration.

Official word on voluntary separation policies may be found in SecNav Inst. 1920.3B.

Sub Acts as Decompression Chamber, Saves Frogman

Marine Corps frogman CPL D. F. Merwing is alive today because a Navy submarine skipper is a "man who thinks for himself."

CPL Merwing, a member of a Camp Pendleton underwater reconnaissance team, became a victim of the dreaded bends recently after a series of deep dives off the high-speed transport *USS Cook* (APD 130) off the California coast.

During the dives, air pressure in the young Marine's body built up, and nitrogen dissolved in large amounts into his body tissue. As he rose the last time, and air pressure dropped, the nitrogen was freed and bubbled out through his body. Those bubbles clustered in nerve tissues, causing paralysis and excruciating pain in the arms, legs and stomach.

When a man's in that condition, there's no time to waste—he needs to be "decompressed," and fast. Unfortunately, in this case the nearest decompression chamber

was at San Francisco's Hunters Point Naval Shipyard, more than 200 miles away.

It was here that LCDR C. H. Lowry, CO of the nearby submarine *Redfish* (AGSS 395) stepped in with a solution. Ordering the stricken man placed in the submarine's pressurized escape hatch, LCDR Lowry hurriedly gunned *Redfish* below to a depth of 125 feet. This built up pressure inside the escape hatch to approximately the same level CPL Merwing had encountered at the deepest point of his dives. Then *Redfish* lit out for San Francisco, and during the 16-hour trip LCDR Lowry brought her toward the surface in gentle stages, gradually decreasing pressure inside the hatch in the process.

Submariner Lowry's quick thinking paid off—by the time CPL Merwing was delivered to the Hunters Point decompression chamber he was out of danger and was on the road to recovery.

Put In Your Request Early for Fleet Reserve To Insure Transfer at Time Desired

If you want to go into the Fleet Reserve within the next year, you had better put in your papers now. The Chief of Naval Personnel needs at least six months to process your papers and get a relief for you under Seavey-Shorvey.

Although the Bureau wants men to transfer to the Fleet Reserve on the date they choose, it has been necessary in the past to defer a few transfers because they were not submitted early enough. BuPers does not, however, want papers submitted more than one year early.

You have the best chance to transfer on the date you choose, advises the Chief of Naval Personnel, if you submit your application one year in advance of the desired transfer date. A copy of this request should also go to the cognizant distribution commander.

If your application is received by the Bureau one year early, it will be authorized unless you:

- Have received permanent change of station orders.

- Request transfer to the Fleet Reserve on a date after you are scheduled to transfer under Seavey/Shorvey.

- Have agreed to remain on active duty for some special program.

If your application for transfer to the Fleet Reserve is received by the Bureau less than one year in advance, or if you are included in one of the exceptions listed above, the Chief of Naval Personnel will take the following action:

- If you have received permanent change of station orders at the time of application, you will be transferred to the Fleet Reserve after one year on board new duty station.

- If you request transfer to the Fleet Reserve on a date after your established rotation tour date, you will be transferred to the Fleet Reserve after you complete your present tour of duty *and* after you have served one year on board your new duty station.

- If you have executed an agreement to remain on active duty, you will be released after your active duty obligation is served.

- If you have served less than one year on board present duty station,

ANSWERS TO QUIZ AWEIGH

1. Instrumentman and Opticalman are the two Group IV ratings. Lithographer, Musician and Draftsman are the three Group VI ratings.

2. a. — 1854 d. — 1847
b. — 1802 e. — 1838
c. — 1899

3. Washington's Birthday (22 February) and Independence Day (4 July). (At 1200 each saluting ship shall fire a national salute of 21 guns.)

Quiz Aweigh questions are on page 47.

you will be transferred to the Fleet Reserve after one year on board has been served.

- If you submit your application less than six months before you wish to go into the Fleet Reserve, the Bureau may postpone your transfer up to six months to give distributors adequate time to select and order a qualified relief.

In some cases when you're in a rate or billet in which a shortage exists, it may be necessary to hold up transfer to the Fleet Reserve until the end of your obligated service. Such deferments, however, will be considered on an individual basis.

Full details are listed in BuPers Inst. 1830.1A.

Watch Out for Those Navy Science Cruisers

If some studious-looking youngster comes up to you and asks how you put science to practical use in your work, don't try to brush him off. It's all part of a Navy program.

That young man may be one of the 200 students selected each year by the Navy through exhibits at science fairs throughout the country. Students whose projects are of par-

ticular interest to the Navy are designated as Navy Science Cruisers. After selection, the students are invited to participate in a short Fleet cruise or visit a shore installation to see how the Navy makes practical use of science. In addition, 10 of them are presented trophies by the Navy at the National Science Fair for their unusual achievements in the field of science.

This program, which was established in 1958, has been adopted throughout the Navy to help interest more students in science. Additional details may be found in SecNav Inst. 5720.19A.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N.Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distribution of these motion pictures to the Fleet began in October.

Head of a Tyrant (1595) (C) (WS): Melodrama; Massimo Girotti, Isabelle Corey.

Crack in the Mirror (1596) (WS): Drama; Orson Welles, Juliette Greco.

S.O.S. Pacific (1597): Drama; Eddie Constantine, Pier Angeli.

The Gallant Hours (1598): Drama; James Cagney, Dennis Weaver.

Wild River (1599) (C) (WS):

All Navy Cartoon Contest

E. L. Bennett, GM2, USN



Drama; Montgomery Clift, Lee Remick.

The Apartment (1600) (WS): Comedy-Drama; Jack Lemmon, Shirley MacLaine.

Twelve Hours to Kill (1601) (WS): Drama; Nico Minardos, Barbara Eden.

Inherit the Wind (1602): Drama; Spencer Tracy, Frederic March.

The Story of Ruth (1603) (C) (WS): Drama; Elana Eden, Stuart Whitman.

Flame Over India (1604) (C) (WS): Melodrama; Kenneth More, Lauren Bacall.

Macumba Love (1605) (C): Melodrama; Walter Reed.

The Enemy General (1606):

Melodrama; Van Johnson, Jean Pierre Aumont.

The Bells Are Ringing (1607) (C) (WS): Musical Comedy; Judy Holliday, Dean Martin.

Battle in Outer Space (1608) (C) (WS): Melodrama; Ryo Ikebe, Kyoko Anzai.

Four Desperate Men (1609): Melodrama; Aldo Ray, Heather Sears.

Portrait in Black (1610) (C): Drama; Lana Turner, Anthony Quinn.

History of Administration of Navy Department in WWII

The book *Administration of the Navy Department in World War II*,

by RADM Julius A. Furer, usn (Ret.), a Naval History Division publication, is now available in libraries and in various offices of the naval establishment.

Besides being a history of Navy Department administration including industrial mobilization, and the application of scientific research to the development of new naval weapons and devices during the war, the book also sketches the background history of Navy Department organization and practices since the beginning of the federal government.

This single volume history provides without extensive research the answers to many questions, or it can serve as a guide to more complete coverage.

LST Loses Bow Anchor But Search Crew Locates Ship That Was Sunk Decades Ago

A Pacific Fleet LST operating in the central Pacific has discovered an as-yet-to-be-identified wrecked ship lying in five fathoms of water. The ship is about 150 to 200 feet in length and is a combination sailing vessel and steamship.

uss *Jerome County* (LST 484) of Landing Ship Squadron One, had been working in support of the Missile Impact Locator System and was moored by both bow and stern anchors in the southwest entrance to Kure (Ocean) Island. When the ship began heaving around to get underway, the bow anchor became lost in five fathoms of coral-and-sand bottom. Then it turned out that the stern anchor was fouled by an obstruction.

A close look showed that a large section of a submerged wreck, extending a considerable distance under the ship, had been broken loose from the bottom by the LST's anchors. After much effort the stern anchor was finally freed and the ship was able to proceed on her mission.

Not wishing to give up his ship's bow anchor to the sea, the ship's CO, LT G. R. Bradford, usn, decided that as soon as the schedule permitted—and providing it could be located—an attempt would be made to recover the bow anchor.

Later, several methods were used in trying to locate the spot, including aerial flights over the area. A marker buoy dropped on the spot had parted its moorings and drifted

away. The search revealed nothing.

Next, the crew borrowed a motor boat with a glass-bottomed section. Then the LST anchored as near to the previous site as navigationally possible. As it developed, the ship did a rather accurate job of it, anchoring (by the stern anchor) within 30 yards of the previous spot.

Into the boat went the ship's CO, the supply officer and a seaman. Peering through the glass bottom, they sighted the bow anchor within five minutes. A minute later they again sighted the submerged wreck. It appeared to have been lying there a long time. As a "sailer/steamer," it would most likely be a ship of the last century.

During the course of the examination several large anchors were spotted. Aboard the LST to assist in the recovery of the bow anchor were frogmen L. J. Savoie, FT1 and E. C. Reynolds, DC1. They went into the water and shackled a wire to the bow anchor and it was promptly housed. Back into the water they went, and 30 minutes later a heavily encrusted, but still intact, anchor was on deck. It was a "stock-and-shanked" old fashioned type.

There was much speculation about the submerged vessel. What ship was it? How long had she been there? Why had she gone down? Crew member G. G. Newell, DC1, recalled reading an article in ALL HANDS telling about the loss

of uss *Saginaw* at Kure Island in 1870. (Damage Controlman Newell has an excellent memory. There was a lengthy letter about that ship on page 27 of the May 1960 issue.)

After *Jerome County* returned to Midway, efforts were made to determine whether or not the wreck was that of *Saginaw*. However, no one was sure. In an effort to gather leads, wide dissemination was made of the news of the discovery, the exact location, the dimensions of the anchor and a description of the wreck.

Meanwhile, authorities directed that other relics be recovered, as feasible—and that along with the anchor they be sent to the Navy Department's Curator, in Washington, D.C. As a result, several port-hole frames, brass wheels of the type used in gun carriages, a wheel for a hand-cranked bilge pump and several other items were recovered.

A 1912 issue of the book, *Last Voyage of the Saginaw*, was obtained from the Library of Hawaii. The book disclosed that *Saginaw* had gone aground on the east reef of the atoll. The wreck discovered by *Jerome County* was on the southwest side—which ruled out *Saginaw*.

Several ships, such as *Dunnotter Castle*, lost in 1889, have met this fate at Kure Island. Their exact position when lost is not known, however. Perhaps when the experts study the relics they can answer the question.

DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interest in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details.

Alnavs

No. 34—Announced approval by the President of the report of a selection board which recommended Marine Corps officers on active duty for temporary promotion to the grade of lieutenant colonel.

No. 35—Required suspension from issue and use of certain influenza virus vaccine.

No. 36—Announced approval by the President of the reports of selection boards which recommended naval officers on active duty for promotion to captain, Medical Corps; commander, Medical Corps; captain, Supply Corps; commander, Supply Corps; captain, Chaplain Corps; commander, Chaplain Corps; captain, Civil Engineer Corps; commander, Civil Engineer Corps; captain, Dental Corps; commander, Dental Corps; captain, Medical Service Corps; commander, Medical Service Corps; captain, Nurse Corps; commander, Nurse Corps; and commander (W) line.

No. 37—Announced approval by the Secretary of the Navy of the report of a selection board which recommended Regular Marine Corps warrant officers to the grades of Chief Warrant Officer W4 (permanent); Chief Warrant Officer W4 (temporary); Chief Warrant Officer W3 (permanent); Chief Warrant Officer W3 (temporary) and Chief Warrant Officer W2 (permanent).

No. 38—Announced that, owing to insufficient travel funds, all shore to shore rotation CONUS, will, with certain exceptions, be suspended for the remainder of fiscal year 1961.

Instructions

No. 1120.12E—Outlines the eligibility requirements and processing procedures whereby certain USNR and USN temporary officers in the grade of ensign through lieutenant

commander (temporary) may be considered for appointment as permanently commissioned USN officers.

No. 5321.7—Announces a program whereby enlisted striker billet requirements for certain specified ratings will be identified.

Notices

No. 1430 (28 September)—Announced the selection of personnel for change in rating to Postal Clerk (PC) and provided procedures for the change in rating.

No. 1416 (3 October)—Cancelled

the requirement for letters of qualification from active-duty officers selected for promotion other than officers and warrant officers of the Medical Department.

No. 1910 (6 October)—Authorized the advancement of the separation date of those personnel becoming eligible for separation during the Christmas-New Year holiday period.

No. 1742 (10 October)—Requested that certain statistical data in connection with absentee voting be forwarded to the Chief of Naval Personnel.

HOW DID IT START

Aiguillettes

If you see a Navy officer with fancy gold cord around his shoulder or draped on his lapel, he is a Naval Aide. The officer's fancy gold cords are called *aiguillettes* (a-gwi-lets') and his job is to serve as an administrative or personal assistant to an admiral or other high official.

You may see two types of *aiguillettes*—dress or service dress. Dress *aiguillettes* not only go around the shoulder of an aide, but also are plaited and draped on his lapel. All aides wear identical dress *aiguillettes* except the Aide to the President of the United States.

Dress *aiguillettes* for the Aide to the President are plaited cord covered with gold or gilt thread. Dress *aiguillettes* for other aides have blue silk intertwined with the gold or gilt thread. The Aide to the President or any other Aides at the White House, always wear their *aiguillettes* on the right shoulder. All other Aides wear theirs on the left shoulder.

Service *aiguillettes*, which are worn with the service dress uniform, are gold cord loops worn around the shoulder. Here again, the cord is covered with plain gold or gilt thread for the Aide to the President, and by gold thread and silk cloth for other aides. And just like dress *aiguillettes*, they are worn on the left shoulder of all aides except those at the White House.

An aide to an admiral or officials of higher rank wears four loops of service *aiguillette* cord around the shoulder; naval attaches and assistant naval attaches wear four loops; aides to a vice admiral, three loops; aides to a rear admiral and officers of lower rank, two loops; and aides to a governor of a state or territory, two loops.

Exactly how *aiguillettes* originated seems to be uncertain. Some historians believe that the first ones were probably rope with pegs on the end. This rope, which was worn around the shoulder of an aide-de-camp to a knight, was used as a tether for

the knight's horse. Other men believe *aiguillettes* stem from their use by provost marshalls. It has been said that on occasion they may have served as a hangman's rope.

Today, *aiguillettes* are a distinctive item of dress for personnel who serve as aides to high officials. Navy Uniform Regulations requires that *aiguillettes* be worn by Navy officers who perform duties as the Aide to the President of the United States; an Aide at the White House; Aide to the Secretary of Defense; Aide to the Secretary, Under Secretary and Assistant Secretaries of the Navy; Aide to the Deputy or Assistant Secretary of Defense; or as an aide to a flag officer. It further requires that *aiguillettes* be worn, when so ordered, by naval attaches and assistant naval attaches and aides to top ranking representatives of foreign nations who are visiting the United States. They may also be worn on official occasions by officers appointed as aides on the staff of a governor of a state or territory.

Aiguillettes are worn only when on duty as an aide. For that reason, they are generally purchased by the command to which the aide is attached. When the aide leaves, the *aiguillettes* stay with the job.



DECORATIONS & CITATIONS



DISTINGUISHED SERVICE MEDAL

"For exceptionally meritorious service to the Government of the United States in a duty of great responsibility . . ."

★ **RABORN, William F., Jr., RADM, USN**, for exceptionally meritorious service to the Government of the United States in a duty of great responsibility from 2 Dec 1955 to 20 Jul 1960. In late 1955, RADM Raborn was charged with the task of developing a Fleet Ballistic Missile System. He established the Special Projects Office, Department of the Navy, and directed his attention to the inauguration of definitive management methods which would provide a necessary degree of control but insure that expenditures would be in accord with budgetary considerations as well as the urgency of the program. He established a single yet forceful management system which encompassed all elements of his responsibility implementing a totally new management tool—the Progress Evaluation Reporting Technique. RADM Raborn's dynamic leadership and initiative were the motivating factors in the successful accomplishments of this important task when, on 20 Jul 1960, *uss George Washington*, SSB(N) 598, proved the operational readiness of the Fleet Ballistic Missile System by launching two *Polaris* missiles from the ocean depths.



LEGION OF MERIT

"For exceptionally meritorious conduct in the performance of outstanding service in the Government of the United States . . ."

★ **SUTHERLAND, William R., LTJG, USN**, for exceptionally meritorious conduct in the performance of outstanding services from 1 Oct 1959 to 1 Feb 1960 while serving on board Air Antisubmarine Squadron Twenty-seven. Upon becoming aware of the problems involved in training pilots and aircrewmembers in a certain antisubmarine-warfare technique, LTJG Sutherland, as Assistant Aviation Electronics Officer, designed and built a training device which materially reduces the time required to train pilots and aircrewmembers in that technique, and which enables them to maintain their proficiency, once

acquired. By his outstanding technical ability, initiative, and resourcefulness, he has greatly aided in enhancing the readiness of fleet-air antisubmarine-warfare units.

★ **WARD, Chester C., RADM, USN**, for exceptionally meritorious conduct in the performance of outstanding services to the Government of the United States as Judge Advocate General of the Navy from 3 Aug 1956 to 1 Aug 1960. He has been widely acclaimed for his realistically expressed convictions concerning the legal posture of the cold war and the communist conspiracy. RADM Ward has taken a leading role and performed outstanding services in recent efforts by the United States to preserve the principle of "freedom of the seas" by promoting treaty recognition of the concept of narrow limits of territorial waters. He has successfully established programs in the Navy promoting speed, simplicity and economy in the administration of justice without sacrificing the quality thereof.

Gold Star in Lieu of Second Award

★ **HARRIS, Dale, RADM, USN**, for exceptionally meritorious conduct in the performance of outstanding service as Deputy Commander Naval Striking and Support Forces, Southern Europe, from July 1957 to May 1959; Commandant, Eleventh Naval District (March-July 1960); and as Commander of several major naval activities in the San Diego, Calif. area, from July 1959 to August 1960. Through his efforts in the Southern European area, he created a better allied understanding of United States seapower on the southern flank of Europe. As Commander, U.S. Naval Air Bases, in the Eleventh and Twelfth Naval Districts, he was instrumental in planning for important naval organizational changes.

Gold Star in Lieu of 4th Award

★ **BRUTON, Henry C., RADM, USN**, for exceptionally meritorious conduct in the performance of outstanding services as Director, Communications-Electronics Division, Headquarters, United States European Command, from 30 Jun 1958 to 31 Jul 1960. RADM Bruton has made a significant contribution to the successful accomplishment of the many joint communications-electronics tasks in the European Command area of responsibility. Under his direction, great progress has been made in the fields of electronic warfare, air-navigation aids, and emergency communi-

cations. He provided invaluable support to the efforts of the Supreme Allied Commander, Europe, to bring about integrated air defense of NATO Europe and other NATO communications-electronics projects.



NAVY AND MARINE CORPS MEDAL

"For heroic conduct not involving actual conflict with an enemy . . ."

★ **CROSS, Curtis K., FT1, USN**, for heroic conduct on 20 Apr 1960 while serving on board *uss Topeka* (CLG 8). As Petty Officer in Charge of a detail of ship's force personnel assigned to lower the boresight and collimation tower of the *Topeka's* missile guidance radars, Cross was in the container with three shipmates when the guy wires to the tower were released and the tower fell. In order to allow his men to escape certain injury or possible death, he chose to remain in the container in an effort to reduce the rate of the fall of the tower with his back. Cross sustained severe injuries while carrying out this daring act.

★ **LAMBERT, Richard M., SN, USN**, for heroic conduct during a fire in a home in Oxnard, Calif., shortly after midnight on the morning of 19 Mar 1960. Passing by in his car when he observed smoke and flames coming from the house, Lambert rushed to a window and succeeded with another rescuer in removing a man and two children from the burning house. Upon learning that there was a third child still unaccounted for, Lambert re-entered the smoke-filled home alone and carried the child to safety.

★ **NUNEZ, Carl K., ADAN, USNR**, for heroic conduct on the night of 9 Jan 1960 while serving with NRA VP 774. As a member of the regular flight crew of a patrol plane he participated in a routine training flight from U.S. Naval Air Station Los Alamitos. When both engines failed, necessitating a power-off, night-ditching at sea, Nunez, despite five-foot breaking waves, succeeded in keeping one of the injured crew members afloat for more than an hour until the arrival of the rescue helicopter. Despite extreme exhaustion, he made a valiant but unsuccessful effort to hold the injured man while being hoisted from the water by helicopter.

Deep Freeze 61



What's going on down in the Antarctic and at the South Pole? A quick look at the information on this and the following pages will show that the United States and the U.S. Navy have been pretty busy there. And there are big plans for the future too, as shown in this report on Deep Freeze 1961.

OIL HEAT may be great around your house, but in Antarctica it means a lot of work and expense because every drop must be imported—by sea or by air.

Heat, power and light at some Antarctic stations will be provided by atomic reactors. Work on a new power plant at McMurdo Sound will begin during this Deep Freeze year, 1961. It should be operating by the spring of 1962. Navy and Atomic Energy Commission experts believe that the difference in cost will enable the reactors to pay for themselves within two and one-half to five years of operation.

All buildings at the stations will be heated electrically. This is most important in the extreme cold of Antarctica because there will no longer be a need for large quantities of air for combustion, and no fumes or gas to be dispersed. Fire hazards and heat losses will therefore be less.

Another project to be undertaken by Deep Freeze 61 men is the penetration of the Amundsen Sea. The ice-breakers *uss Glacier* (AGB 4) and *Staten Island* (AGB 5) will attempt to enter the ice-filled body of water in January 1961. The two-ship task group will be under the command of Captain Edwin A. McDonald, USN, a veteran of six Arctic and five Antarctic expedi-

tions. The Amundsen Sea coast is among the last remaining unexplored parts of the Antarctic continent. So far, the rugged ice pack in this sea has refused to allow a ship to reach the coastline.

ANOTHER UNDERTAKING by Deep Freeze 61 explorers will be an 800-mile trek by tractor train from Byrd Station to South Pole Station. Ten men will attempt the crossing. The trail will be marked every fifth of a mile with 12-foot bamboo poles. The Navy explorers will also establish geographical fixes in the Horlick Mountains for mapping purposes. Besides these missions, the tractors are needed at the South Pole for further construction.

Rear Admiral David M. Tyree, USN, Commander Naval Support Force, Antarctica, reports that these projects are in addition to the Task Force's regular job of resupplying the year-round scientific stations with new men and supplies.

In addition to the Navy forces in Antarctica, Admiral Tyree commands elements of the Coast Guard, Military Sea Transport Service, Army and Marine Corps assigned to the expedition. In all, he has nine ships, over 30 aircraft and some 3000 men assigned to Deep Freeze 61.

THE UNITED STATES is currently operating and maintaining three stations in the Antarctic and is working closely with New Zealand in the operation of another. Also, under agreements made with Australia and Argentina, the United States is continuing scientific pro-



SAFETY DEVICE—Sno Cat, equipped with crevasse detection gear, is used to feel the way across Antarctica.

grams at two other locations, the Wilkes Station and in the Weddell Sea.

These stations are:

- **South Pole Station**—Located at the geographical pole, this station is built on a plateau almost 10,000 feet above sea level.

- **Naval Air Facility, McMurdo Sound**—Located on the west coast of the Ross Sea, McMurdo is the principal sea and aerial cargo staging base for Antarctic operations as well as a scientific station. It is the Antarctic headquarters of Admiral Tyree and the headquarters of U.S. scientific efforts in Antarctica. A new atomic power station will be started there during this Antarctic summer.

- **Byrd Station**—This station is in the heart of Marie Byrd Land, 80 degrees south latitude, and 120 degrees west longitude. This base will be almost completely rebuilt under the snow. Construction starts this year.

- **Hallett Station**—The United States and New Zealand jointly operate this scientific research center which is located on Cape Hallett in the Ross Sea.

- **Ellsworth Station**—Although the custody of the equipment and facilities at this station were transferred to Argentina for operational and logistic support in February 1959, scientific research is still conducted by both countries.

- **Wilkes Station**—Custody of equipment and facilities at this station was transferred to Australia in February 1959 for operational and logistic support. Australia and the United States conduct joint scientific research there.

In addition to these already established stations in Antarctica, two auxiliary air support facilities—manned by naval personnel—will be reopened this year at Beardmore Glacier (*Naval Auxiliary Air Facility, Beardmore*) and at the halfway point between Naval Air Facility, McMurdo and Byrd Station (*Naval Auxiliary Air Facility, Little Rockford*).

THE DEEP FREEZE 60 wintering-over party at these stations was made up of 198 Americans. Nineteen were at Pole Station; 21 at Byrd Station; 14 at Hallett; 138 at NAF McMurdo Sound; one U.S. geophysicist at the Russian Mirny Station; one meteorologist at Ellsworth; and four U.S. scientists at Wilkes. Thirty-seven of these persons were civilian scientists and the remainder were Navy officers and enlisted men.

Many of these men have already been flown to New Zealand en route to the United States or to new duty

stations. An eager new group, however, is moving onto the continent with a full summer's work waiting for them. Some of these new men will work only during the Antarctic summer and then return home, while many of them will remain as the Deep Freeze 61 wintering-over party.

Other construction projects for McMurdo include the completion of a communications center, the erection of a transmitter building and construction of three new snow roadways.

At Byrd Station an entire new under-snow camp will be started. Eventually, all buildings and facilities at Byrd will be housed beneath the snow in tunnels. Besides providing protection against the severe weather, these under-snow buildings cannot be damaged by the accumulation of snow which has wrecked nearly all the buildings now on the snow surface. When complete, the station will contain about 15 buildings, a scheduled nuclear power plant, all essential utilities, scientific laboratories and housing for 40 men.

BEFORE SOME OF THIS construction work can be done, supplies and equipment must be imported. *uss Edisto* (AGB2), *uss Glacier* (AGB 4), and *usccg Eastwind* (WAGB 279) were expected around the fifth of December to break a path for cargo ships scheduled to arrive with these supplies and equipment in late December and early January.

These three icebreakers make up only one-third of the ships assigned to *Deep Freeze 61*. The other ships (which were scheduled to leave their operating areas from October through December) have already started to arrive in the Antarctic area.

uss Staten Island (AGB 5) left Seattle, Wash., in October and visited San Diego, Calif.; Portland and Melbourne, Australia; and Port Lyttelton, N.Z., before beginning oceanographic work in the Ross Sea early in December.

The only Navy manned cargo ship assigned to *Deep Freeze* this year, *uss Arneb* (AKA 56), is returning for her sixth straight year. This Atlantic Amphibious Force ship will leave Davisville, R.I., pass through the Panama Canal, make a stop at New Zealand and then follow an icebreaker to Cape Hallett. She is scheduled to arrive there in February 1961.

The Military Sea Transport Service has assigned two transports to *Deep Freeze 61*. *usns Private John R. Towle* (TAK 240) left Davisville, R.I., in November and should arrive at McMurdo late in December. *usns Greenville Victory* (TAK 237) is also scheduled to

AIRPORT LIMOUSINE—An AirDevRon Six plane is met by NAF's Survival Dog Team on arrival at McMurdo.





HAZARDOUS DUTY—A rescue party member peers into a trench dug to reach a Sno Cat that broke through surface.

leave from Davisville, but not until *Towle* has already arrived in the Antarctic area. *Greenville Victory* is scheduled to depart Davisville on 22 December and arrive at McMurdo late in January.

The tanker USNS *Alatna* (TAOG 81), also provided by MSTC, left Norfolk, Va., in late November and is scheduled to arrive at McMurdo in early January. After depositing her liquid cargo at McMurdo, this AO will return to Port Lyttelton, N.Z., twice more for additional fuel for McMurdo.

USS *Wilhoite* (DER 397), the only combatant-type ship attached to Deep Freeze 61, went to the Antarctic from her home base at Pearl Harbor. *Wilhoite* is the first Pacific Fleet DER ever assigned to a Deep Freeze Operation.

WHILE IN THE ANTARCTIC AREA, *Wilhoite* will operate from Dunedin, N.Z., as an ocean-station weather ship. Her principal responsibility will be to provide weather information for pilots of Air Development Squadron Six and the USAF 9th Troop Carrier Squadron who fly between Christchurch, N.Z., and McMurdo Sound.

The first of these planes arrived in New Zealand in September and began to airlift personnel and cargo to the various Antarctic stations. Some planes of these squadrons also make reconnaissance flights and perform photographic missions.

The following planes operate under the control of VX6:

- Four C130BL, ski-equipped, *Hercules*
- Three P2V-7, ski-equipped, *Neptunes*
- Three R4D-8, ski-equipped, *Skytrains*
- One R4D-5, ski-equipped, *Skytrain*
- Five UC-1, ski-equipped, *Otters*
- One R7V-1, wheel-equipped, *Super Constellation*
- One R5D-3, wheel-equipped, *Skymaster*
- Four HUS-1A, *helicopters*

In addition to these planes, six helicopters from Helicopter Utility Squadron Four, Naval Air Station, Lakehurst, N.J., and two helicopters from Helicopter Utility Squadron One, Naval Air Station, San Diego, Calif., are being carried aboard the icebreakers for sea, ice and scientific reconnaissance.

The Military Air Transport Service's Ninth Troop Carrier Squadron (heavy) has seven C124 *Globemaster* aircraft which are available for routine airlifts to Antarctic bases besides making airdrops of supplies and equipment that may be needed either as a routine resupply mission or in emergency situations. Before the

C124s complete their operation in early December, they will have airlifted some 1000 tons of high priority cargo to Pole and Byrd Stations.

THIS IS THE FIRST YEAR the Navy has had the ski-equipped C130 *Hercules* airplane available for operational flying in the Antarctic. Last year, with the support of the Air Force, seven *Hercules* were not only tested in Antarctica, but also successfully used to move material and men to the South Pole and Byrd Station. Through the use of this plane, the Navy intends to improve its support and resupply of inland stations in future Deep Freeze operations.

Hercules, which will ski-land at some inland stations, can land on snow as well as on ice runways. The use of the plane is expected to save the United States hundreds of thousands of dollars in parachutes alone and also eliminate the damage previously experienced in parachute dropping. Capable of hauling 10 tons at about 350 mph, *Hercules* will eventually replace the present R4D cargo planes. The R4D carries two tons at 160 mph.

Other planes, some of which have already logged many hours of hazardous Antarctic flying, range from the Navy's ski-equipped UC-1 *Otters* to the MATS giant C124 *Globemasters*.

New Zealand-based aircraft of Air Development Squadron Six and MATS' Ninth Troop Carrier Squadron began flying from Christchurch to the McMurdo ice strip about 1 October. The ice runways should remain in good condition until early in December.

Although much is said about the military support of the men on Antarctica, the reason behind the entire operation is scientific research. In fact, a recent agreement between 12 nations has outlawed military operations on any part of the continent.

The U.S. scientific program in Antarctica is administered by the National Science Foundation. On several of the projects NSF relies strongly on Navy development work and close operational support. Navy personnel and scientists work together to further U.S. scientific research in this cold south.

Personnel of the Navy Weather Service meteorological program have a continuing research program. They take upper air balloon soundings at NAF McMurdo; operate automatic weather stations, and experiment with different communications methods.

BRIGHT LIGHTS illuminate downtown area at NAF McMurdo Sound, during long night of an Antarctic winter.





THIS CHAPEL is named Our Lady of the Snows, after a church in Rome. Peak in background is Observation Hill.

This is the sixth consecutive year that the U.S. Navy has operated in the Antarctic and both *uss Glacier* (AGB 4) and *Arneb* (AKA 56) have been along for every trip. For *Staten Island*, *Edisto*, *Eastwind*, *Greenville Victory*, *John R. Towle*, and *Alatna*, it's their third tour of duty in the Antarctic, while *uss Wilhoite* is making her maiden voyage to Antarctic waters.

What do you know about the world's least known continent? Not very much, if you're like the rest of us. These are some of the pointers that Navymen have gathered together about life in the Antarctic.

MOST AIRPLANE ACCIDENTS during Deep Freeze operations are caused by a polar phenomenon commonly known as a whiteout.

A whiteout is a condition in which shadows and horizon disappear; normal depth perception is lost; and all light is even. To a man caught in a whiteout everything appears to be suspended in space—sky and land have the same greyish-white appearance.

Whiteouts happen when there is a fairly low, but even, cloud cover over a snow- or ice-covered surface. The sun's rays bounce between clouds, diffuse the light, and eliminate all shadows and ridges on the surface. The general scene is one of uniform greyness. A whiteout is not, as some believe, fog or blowing snow.

Although the cause of a whiteout is known, the condition cannot be forecast. For that reason, flying in Antarctica is dangerous. Also, there are few ground navigational aids to help pilots find their way. U.S. aircraft are forbidden to take off during a whiteout, but they have been caught in flight by this freakish weather. Aviators liken it to flying in a bowl of milk.

Pilots are not the only men troubled by whiteouts. Objects on the ground lose their proper perspective. Men have even walked into buildings after failing to judge distances correctly. Also, a man may look at his feet, see them, but still be unable to tell what he is standing on.

MOST NAVYMEN PROBABLY think of Antarctica as a great white chunk of ice with penguins sprinkled along the coastline.

And, on the surface, they may be right. The continent itself supports almost no wildlife. A few strange insects

exist there, and some forms of mosses and lichens can be found, but almost nothing else. Although in some areas coarse grasses can be found, the rocky mountains are generally bare.

The seas surrounding Antarctica, however, are almost the exact opposite. Scientists have estimated that one acre of Antarctic sea water contains more food and life than one acre of land or water found any place else in the world. Some of the types of life found in Antarctica live on the continent or the pack ice, but they are dependent on the sea for their food.

Perhaps the most interesting and amusing creatures found in Antarctica, however, are the penguins. The two best known varieties of Antarctic penguins are the Emperor and the Adelie.

THE EMPEROR is the dignified host of the southern continent. These stately creatures waddle around paying little attention to anything.

The Adelies, on the other hand, are the clowns of the Antarctic. They play in the water, and they are always curious about anything man does. Adelies grow to a height of about 14 inches, while the Emperors are about three or four feet tall.

Both of these species get their food from the water. They feed on small fish, shrimp and plankton. Plankton is made up of sea life so small that it must be viewed under a microscope before individual specimens of it can be seen. Yet it is so plentiful that it often stains sea ice green.

Seals are also plentiful in the waters of Antarctica. At one time these mammals were hunted quite extensively for their pelts. The leopard seal lives mainly on fish, but will eat penguins where possible. Other varieties of seals to be found are the Ross seal and the Weddell seal.

THE LARGEST ANIMAL in the area is the blue whale. This warm-blooded animal sometimes grows to a length of 90 feet and weighs as much as 150 tons.

A cousin of the whale is the porpoise. One type of Antarctic dolphin has been named the killer whale. These animals are among the most savage of all beasts. They hunt in packs and will attack even the great blue whale. When they see a man or a seal or bird on the ice, they dive deep under the ice, and have been known to break ice three feet thick to dump their prey into the water. So far as is known, however, no man has been eaten by a killer whale.

The skua gull, which has been seen on the icecap within a few miles of the South Pole, is the scavenger of Antarctica. These birds feed not only on fish, but also on penguin chicks and eggs. If garbage is thrown over the side of a ship the skua gull is always there to rummage through it.

Most of the animals and birds found in Antarctica do not live on the continent all year around. Penguins and seals move north to the edge of the pack ice as winter approaches. The Emperor penguins lay their eggs during the winter night, and they carry the egg, and later the chick, with them on their webbed feet beneath a roll of soft fat.

The Adelie penguin migrates north for the winter, but returns to Antarctica in the summer.

HERE ARE A FEW more facts that may intrigue you, gathered together by Capt. E. A. McDonald, usn,



ADELIE PENGUINS are known as the clowns of the Antarctic. They seem to be curious about everything they see.

Deputy Commander, Task Force 43:

- Antarctica is the fifth largest continent with 5,100,000 square miles of territory. It is about the same size as the United States and Mexico together. It also has an average altitude of 6000 feet, which makes it the world's highest continent.

- People may have lived in the Antarctic many years ago. In 1893, a Norwegian sealer found on Seymour Island about 50 clay balls perched on pillars of the same material. "These," he reported, "had the appearance of having been made by human hands."

- Antarctica once had a temperate or semi-tropical climate. Numerous tropical ferns and plant life have been found imbedded in rock on Palmer Peninsula and in the coal seams in the Upper Beacon Sandstone of the Beardmore Glacier some 300 miles from the South Pole.

- The existence of Antarctica as a continent was not known until the middle of the 19th century, when LT (later Rear Admiral) Charles Wilkes, USN, sailed half-way around it. The many landfalls seen by this expedition first determined the continental dimensions of Antarctica.

- Objects hundreds of miles away sometimes may be seen clearly by the naked eye in the Antarctic. This peculiarity, known as looming, may have been responsible for a portion of sightings by early Antarctic explorers. It is brought about by an atmospheric condition which meteorologists term an inversion: warmer layers of air exist above colder ones and cause light rays from the object to the eye to be curved concavely downward toward the earth's surface.

- There are no polar bears or land animals in the Antarctic. Killer whales and leopard seals are the big villains in waters surrounding Antarctica. As a result, penguins and seals find haven on the sea-ice.

- Because of the earth's centrifugal force, 5000 tons of cargo loaded on a ship in the vicinity of the equator would weigh about 25 tons more at the pole.

- The intense cold and sterility of Antarctic air preserves food and materials almost indefinitely. As an example, corned beef, canned beans, and sugar cached by the Swedish explorer, Nordenskjold, provided a most satisfactory meal for a British survey party 45 years later. The print on a magazine, too, was as readable as ever.

- They mine for water at the South Pole. Since the only water available is that which can be melted from snow, and low temperatures frequently prevent sustained activity outside, water for a station at the South Pole is obtained from germ-free snow blocks dug from a snow

mine which can be reached directly from the station living quarters.

- During Deep Freeze III in 1957, an airfield in McMurdo Sound was repaired with a mixture of snow, ice, and water. During a midsummer hot spell, the ice runway began to melt in areas where waste and oil had collected. Refreezing was done by filling the chuckholes with the mixture and allowing the colder evening temperatures to do the work.

- Owing to the earth's rotation, ice drifts to the left of the wind in the Antarctic, whereas it drifts to the right in the northern hemisphere. Likewise, persons who have become lost find they invariably circle to the left in the Antarctic and to the right in the Arctic.

- The round, barrel-hulls of the Navy icebreakers prevent them from becoming crushed in Antarctic ice. This peculiar construction enables them to pop up if pressure reaches dangerous proportions. Shackleton's *Endurance* was crushed and lost in the Weddell Sea in 1915 because the ice was able to exert force and pressure on her hull and timbers.

- Rear Admiral Richard E. Byrd, the late polar explorer, was not only the first to fly over the South Pole, but was the first to live alone in the Antarctic. For five long, weary months, often ill from fumes from a stove, he lived in a small snow-covered hut, carefully taking weather and temperature observations ranging to about 80 degrees below zero.

- The mammoth, rubber-tired *Snow-Cruiser*, transported to Antarctica on Rear Admiral Byrd's 1939-41 expedition, was one of the most interesting vehicles ever designed for polar travel. Its wheels could be raised into compartments inside so that it was able to slide down ridges on its belly runners. It even carried a small plane on its roof. Besides living quarters for four men, it contained a machine shop, laboratories, and photographic and long-range radio facilities. Originally scheduled for the long overland snow trip to the South Pole and return, its power proved wholly inadequate and it never left Little America.

- In spite of its being a land of ice and snow, the Antarctic continent is the home of a large, active volcano. Mount Erebus, which is 13,000 feet high, is on Ross Island in the McMurdo Sound area.

- The coldest temperature ever recorded was 124 degrees F. below zero at the Russian Sovietskaya base in the interior of Antarctica, in September 1959. The coldest recording at a U.S. station was at the South Pole also in 1959. It was minus 110 degrees F.

TRAILBREAKER—USS *Glacier* (AGB 4) has her work cut out for her as pathmaker for cargo ships in Antarctica.



TAFFRAIL TALK

CHIEF STEWARD Ramon G. Cabalona of the Pacific Fleet guppy submarine *USS Catfish* (SS 339) is \$1000 richer these days—and all because he baked better pie than 99 women could.

The prospect of competing with 99 grimly determined female culinary artists should be enough to make most strong men think twice, but not so Chief Cabalona. Armed with his recipe for "Sub Meringue" pie, and bolstered by the confidence built upon the long and loud praises of his well-fed shipmates, the Chief flew off to Washington, D.C., as one of 100 finalists in the annual National Bake-off Contest.

Contestants were lined up at 100 sparkling new stoves, and, within a given time limit, were expected to create and bake their favorite recipe. Chief Cabalona didn't win the \$25,000 grand prize—one of the distaff entrants grabbed that off with something called "Dilly Casserole Bread"—but the judges proclaimed his effort "the only pie entered worthy of a prize."

Catfish crew members weren't the least bit surprised at the news of their popular head cook's triumph. Sub Meringue pie, an orange-flavored, cream concoction, has been a big hit aboard the San Diego-based submarine for a long time now.

★ ★ ★

The Old Navy was never like this. A physicist in the Research Department at the U.S. Naval Ordnance Test Station, China Lake, E. W. Price, who is considered to be one of the nation's top authorities on rocket combustion, thinks he has found the answer to many of our rocket failures. Too much noise, he says. Sound waves created within the rocket cause irregularities in the propellant combustion. The sound waves, interacting within the rocket flame, set off a chain reaction which leads to either explosion of the motor case or violent vibrations in the rest of the missile, which cause failure in the guidance and control system.

★ ★ ★

Not too long ago, we had a few terse, well-chosen words to offer on the subject of "terabucks," "gigadollars," and "megapounds." We now have a further contribution to make to the growth of our contemporary language—the ganzfeld.

It's at the opposite end of the quantitative spectrum of terabucks and the like, which were words coined to handle sums beyond the normal language. A ganzfeld, on the other hand, is strictly a nothing.

As whipped up from a minimum of materials by the Office of Naval Research, ganzfeld describes the phenomenon of looking into a visual field where there is, literally, nothing to see. This weird situation—which cannot be reproduced by merely closing your eyes or entering a dark room—is sometimes encountered by pilots at very high altitudes. In every direction there is just nothing. Then all sorts of phantoms begin to appear. These are projections out of one's own mind which, nevertheless, seem quite real.

As yet, and as might be expected, very few people have seen a ganzfeld, but those who have claim that it isn't quite the same as the whiteout of the Antarctic. The whiteout is a white nothingness, but a ganzfeld isn't even white.

Any day now, we expect to hear of a boot being sent to the Supply Office for a gross of ganzfelds. Ah, the progress of science!

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

ALL HANDS

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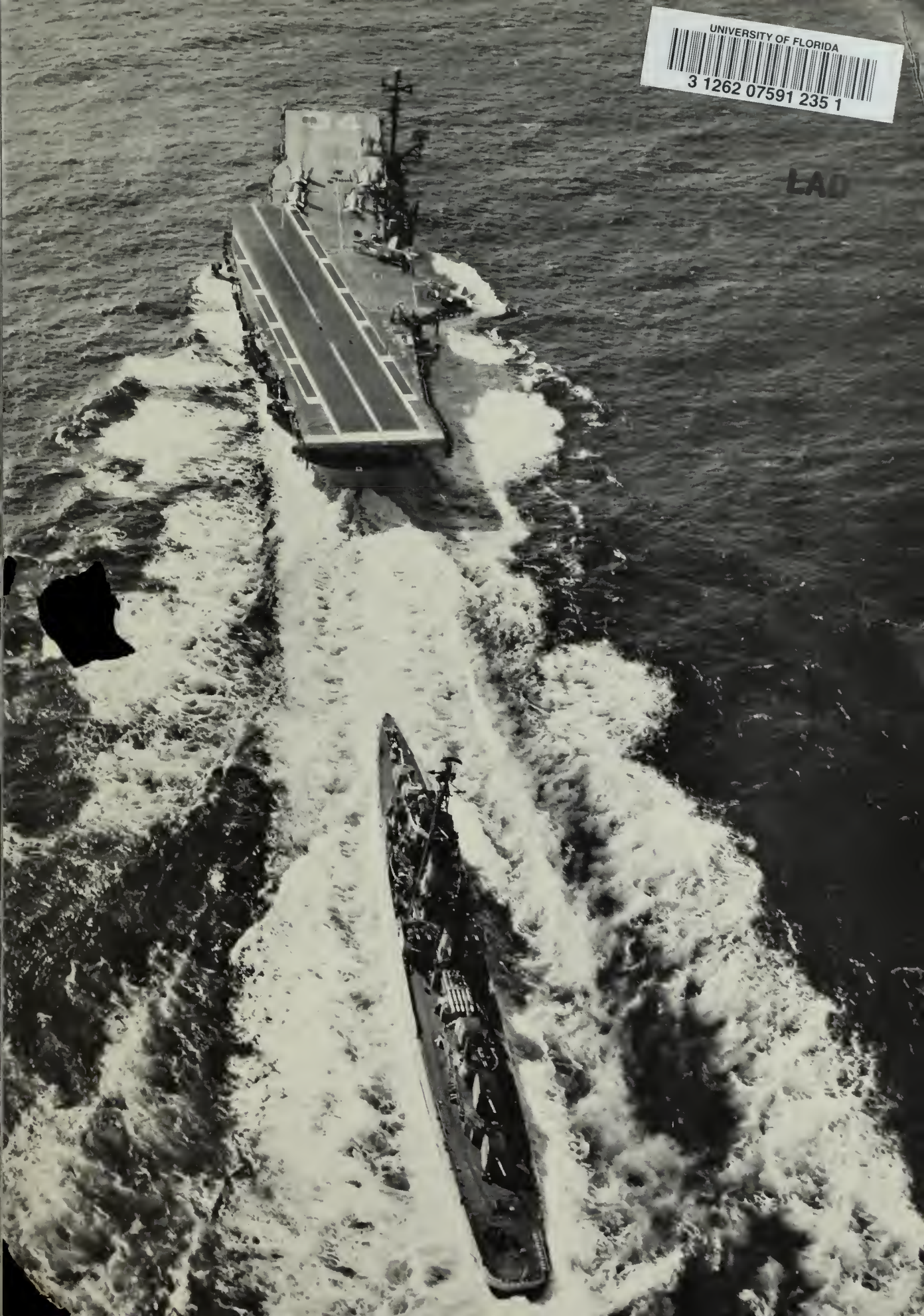
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• AT RIGHT: FOLLOW THE LEADER—
Destroyer *USS Brown* (DD 546) maneuvers in the wake of attack carrier *USS Oriskany* (CVA 34) while simulating refueling at sea at speeds in excess of 25 knots.

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Antarctica 1960



FROM POLE TO POLE

MEN OF GOODWILL